

**Refrigerated top table counter**

# **BIG HORN**








Operating manual

**Dear Customer,**

Thank you for purchasing the product of the company UNIS COOL s.r.o., which is long-time successful manufacturer and supplier of a specialized range of professional refrigeration and catering equipment. We believe that with the help of this facility you will attract a lot of attention to the exhibited goods and your customers will be happy to return.

**► Symbols used in this manual**

SYMBOL	MEANING
	These symbols are the " <b>WARNING</b> " and " <b>CAUTION</b> " and point to the fact that the activity can cause damage and / or serious injury to the user.
	
	This symbol indicates an important instruction, property, process or matter, which is necessary during the servicing and maintenance of equipment comply or be aware of.
	Symbol points to useful information related to the device or accessories.
	Symbol is a reference to another section of this manual.

**► For whom is the guidance intended**

This manual is intended for all persons who come into contact with the device during the installation, operation and maintenance. Each of these persons must be thoroughly familiar with its content before beginning any activity with the device.

**► Necessary notice**

Carefully follow the instructions therein, to make the use of equipment, but also ensure its optimum use and long life.

**Do not turn-on the unit until you are thoroughly familiar with all instructions, restrictions and recommendations that are included in this manual, especially the chapter "Safety in use".**

The illustrations used in this manual may not always agree with reality; their purpose is to describe the main principles of the device.

**► If you are unsure**

In practice there are often unpredictable situations that can not be included in this instruction and described. Therefore, whenever you are not sure, contact your supplier.

When contacting the supplier or trained technician, please prepare the basic data about the device.

You can read the nameplate, located in the upper right corner of the enclosure cooling units, see the last page.

## **1 | DELIVERY**

### **1.1 | Packaging and Content Delivery**

During transport the rear sliding doors, shelf brackets and shelves are removed. Everything is packed and placed on exhibition board.

Inside the exhibition space you will find individually wrapped dismantled smaller portion of the case.

### **1.2 | Transport to the installation site**

It is recommended to transport showcase in the original packaging to the place of its installation.



*During transport of the showcase and subsequently during its establishment in the site is prohibited exert a force (push) to all glass showcases.*

When receiving the unit from forwarder visually check that the display case was not damaged during transport. Unpack also all individually packaged parts and check them. In case of any damage, contact the supplier immediately and do not install the machine. Fill the report with the driver.

### **1.3 | Storage**

If you do not unpack the showcase after delivery immediately, it must be stored under the following conditions:

1. Showcase should be kept in their original packaging in a dry and dark place.
2. Do not turn upside down nor to side the showcase. Do not place any objects on it.
3. Keep the showcase away from direct sunlight, frost and moisture. The optimum storage temperature is between +5 to +30 ° C. Humidity of storage room must not exceed 60%.

### **1.4 | Unpacking**

1. Use the suitable tool, remove all individually packaged parts and remove all reinforcing elements and packaging materials.
2. Visually check that the display case was not damaged during transport. Unpack also all individually packaged parts and check them. In case of any damage, contact the supplier immediately and do not install the machine. Fill the report with driver.
3. Remove the display case of the pallet. Due to the weight of unit we recommend to use of at least four persons for removing it.



*How to complete a showcase after unpacking can be found in section 3.2.*



*After unpacking ensure a proper disposal and recycle all packaging materials. Dispose according to the relevant law valid in showcase user's country. If you are unsure, entrust the disposal to a specialized company.*

## 2 | INTRODUCTION

### 2.1 | Using of the showcase

**BIGHORN** top table counter is designed to display and maintain the temperature of cold pre-packed snacks. Showcase allows easy installation on the table therefore it is ideal for fast foods, pastry shops, bakeries, shops, restaurants, pumps and so on. The operation of the showcase is controlled by electronic controller. The counter **BIGHORN** may be performed in the **serve over** or **self-service** design.

**⚠** *Any use of equipment, employing in excess of this region, including modifications to security or functional elements without the permission of the manufacturer, is deemed inappropriate purpose. For any damage resulting from such an activities, the equipment manufacturer is not liable, the risk is covered by the user solely.*

**!** *Before first run please read the chapters 3.3 and 3.4 carefully, follow the steps noted there to prevent any damage.*

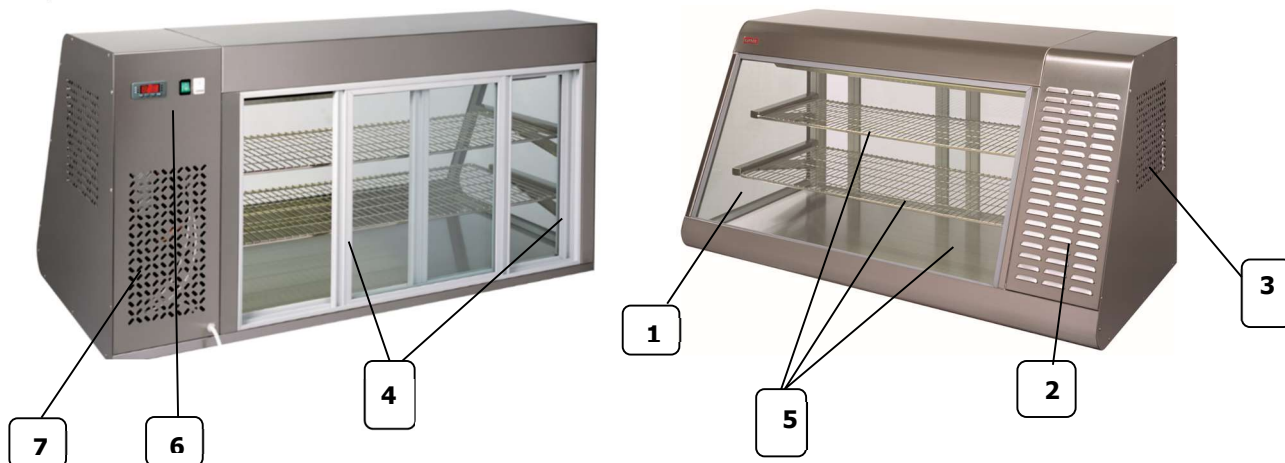
### 2.2 | Improper use

- Showcase is not intended to chill the merchandise on display.
- Showcase is not intended for permanent storage of refrigerated goods.

### 2.3 | The main parts of the case

The most important part of the exhibition space, which is equipped with grid shelves for arranging snacks, is lit on the top by the friendly fluorescent lighting. The access to the exhibition space is possible through the back sliding doors for the shops assistant by self-service and serve-over versions. By Self-service versions the access to displayed goods is made possible through the front glass (either flip-flop doors or sliding doors).

The case is equipped with a **static cooling system** operated by electronic controller which ensure automatic defrost and evaporation of condensate water.

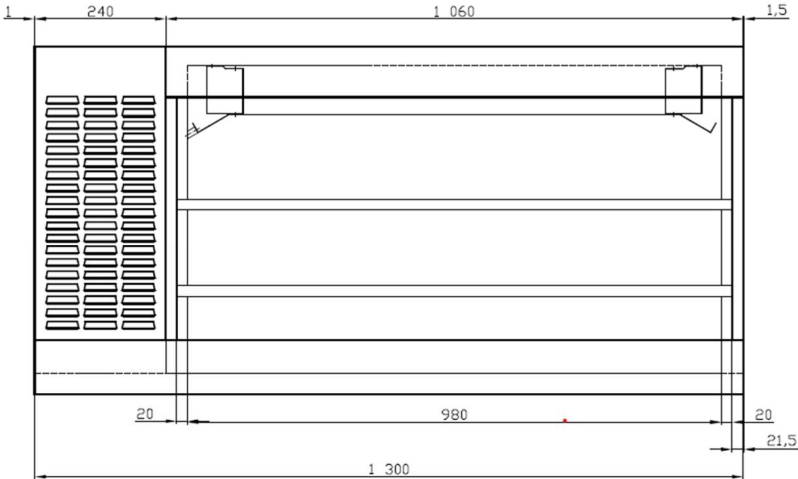


**i** *The position of the compressor unit might be left or right, depending on your order / seen from back service side. On the above picture is the left version.*

Pos.	Name
1	Front glass (serve over)
2	Air exhaust outlets
3	Side grids for sucking the air
4	Back sliding doors
5	Exhibited area /shelves+bottom board)
6	Control panel+switches
7	Air exhaust outlets

**2.4 | Dimensions**

**BIGHORN WITH BUILD IN aggregate**



### **3 | BEFORE FIRST TURN-ON**

#### **3.1 | Place of operation**

- 1) The showcase will work correctly:
  - At the workplace with temperature from +16°C to +25 °C
  - With ambient humidity max. to 60% RH
- 2) Do not operate the showcase:
  - near the cooling nor heating sources
  - in the place where sunlight can affect operation of the unit
  - in the place with draught (from air-conditioner or near the entry)
  - near other objects which could prevent proper ventilation

#### **3.2 | Assembling**

- 1) Showcase should be placed on aligned table
- 2) Insert shelf consoles.
- 3) Insert grids to shelves.
- 4) If the model is provided with sliding back doors, insert them. By self-service version with sliding doors install the front doors as well.

#### **3.3 | Connection to the electric power**

The case is designed for single-phase voltage 230V / 50 Hz. The power supply socket must be separately grounded and protected by a fuse of 10A. Other devices must not be attached to this separately fused circuit. It is necessary that the electrical connections of this showcase is protected and it complies with applicable regulations.

#### **3.4 | Before first turn-on**

- 1) Visually check if all packing materials and protective foil were removed.
- 2) Clean the exhibition space and shelves with a slightly damp cloth and a suitable detergent.
- 3) Dry the surface of washed surfaces with a dry cloth.
- 4) Properly chill the interior of the cabinet, see chapter 5.2 Turn on.

## 4 | SAFETY IN USE

For personal safety when operating equipment is mainly responsible the operator. Manufacturer of the showcase is not responsible for personal injury or property damage and environmental damage caused while the unit is not used and serviced in accordance with the instructions for operation and maintenance and the applicable safety regulations.

### 4.1 | In general

- ! Showcase may be used by the **trained personnel only**. Never allow anyone, who is not authorized to use the display case and is not familiar with its functions, to manipulate it, carried its maintenance or other activities contrary to its intended use. Such improper operation may result in injury or damage the device.
- ! Showcase may be used only for their intended purpose and in accordance with the instructions. Any other use is in contrary with its purpose and it is considered as dangerous.
- ! For safety reasons, do not remove the cover or attempt to get into the case. There are no parts which you, as the user, can manipulate. Repair of any faults and maintenance, beyond that described in this manual, must be carried out by qualified service technicians.
- ! Do not block the ventilation holes of the equipment.
- ! Before use, check the exhibition space. Remove the remnants of food, unremoved cleaners, protective foil or other objects and clean the exhibition space thoroughly.
- ! Do not place the device on or near ignitable sources.
- ! Check the correct positioning and securing of shelves. Incorrect placement of shelves may lead to fall and cause injury.

### 4.2 | While using the showcase

- ! If the device is damaged in any way, turn it off immediately, unplug it from the power supply and contact your supplier.
- ! Operate the control panel buttons by using fingers exclusively. Using sharp, pointed or other objects to control the device will affect the warranty of equipment.
- ! Ensure that the load of shelves and exhibition space does not exceed the maximum permissible load (Chapter 5.4).
- ! When opening showcase do not press on the glass surface and do not use excessive force. Glass can break and cause injury.



***Always be aware of touching heated internal parts of the showcase without proper tools, ie hands protection.***

### 4.3 | After working with a showcase

- ! For cleaning, use only non-aggressive cleaning agents.
- ! For cleaning, do not use sharp objects.
- ! Never use water stream, there is a risk of electrical short circuits. Clean only with the damp cloth.
- ! During periods of disuse device, turn off the power supply.

### 4.4 | Electrical safety

- ! If there is any damage to the electrical parts of the equipment, it is necessary to ensure the immediate repair. The damaged equipment must not be operated.
- ! Do not damage, alter or bend the power cord excessively. Do not tighten it and avoid its twisting. Placing heavy objects on the power cord and other compression may result in electric shock or fire.
- ! Use a single dedicated AC socket only. Do not use extension cords or multiple sockets, can cause overheating and electric shock or fire.
- ! The device is intended for indoor use only. It must not be exposed to rain, there is a risk of electric shock.
- ! If the installation of showcase in a moist environment is unavoidable, install a circuit breaker with effective protection against current leakage. If the circuit breaker is not installed, there is a risk of electric shock.

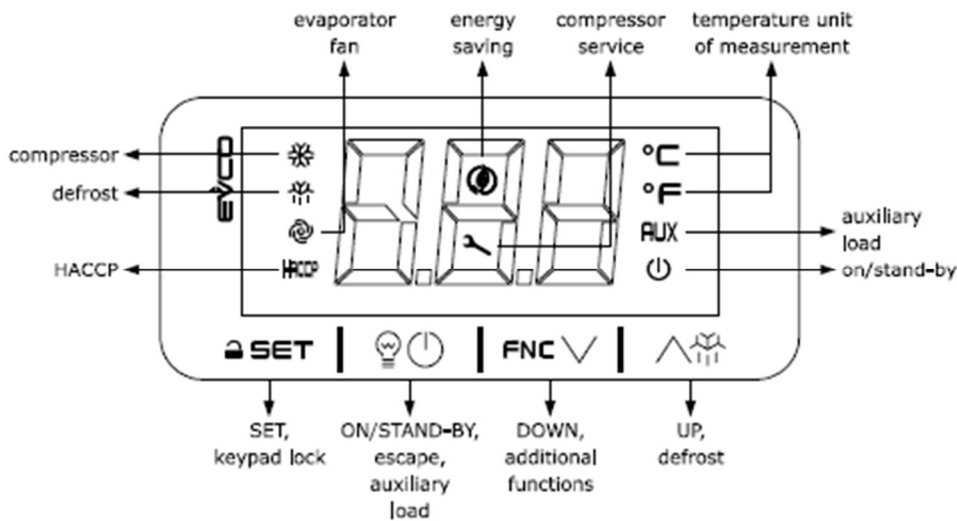
**5 | OPERATION**

**5.1 | Control panel**



- 1 - Electronic control unit EVCO 3224
- 2 - Light switch
- 3 - Power switch

**Description of control unit's buttons/indicators**



**Symbols explanation of electronic control unit indicators:**

LED	ON	OFF	FLASHING
	compressor on	compressor off	- compressor protection active - setpoint setting active
	defrost or pre-dripping active	-	- defrost delay active - dripping active
	evaporator fan on	evaporator fan off	evaporator fan stop active
<b>HACCP</b>	saved HACCP alarm	-	new HACCP alarm saved
	energy saving active	-	-
	request for compressor service	-	- settings active - access to additional functions active
°C/°F	view temperature	-	overcooling or overheating active
<b>AUX</b>	auxiliary load on	auxiliary load off	- auxiliary load on by digital input - auxiliary load delay active
	device off	device on	device on/off active



## 5.2 | Turn on

- 1) Connect the power supply to the display case.
- 2) Turn the power switch **(3)**. The display will show the current temperature and cooling to this temperature will showcase cool.
- 3) Turn on the light switch **(2)**.




*Let the empty showcase run for at least one hour, or until the desired temperature is reached.*

After switching the display case starts cooling. The cold air from evaporator fall down to shelves and display bottom board. There are front and back cold air exhausts. The warm air is sucked by side grid outlets. It is necessary not to block the air access side grids as well as exhaust air outlets.

The collection, drainage and evaporation of condensate from the evaporator is done automatically. The case is equipped with automatic defrosting, set by the manufacturer (every 6 hours for 30 minutes). The condensed water is automatically drained from the evaporator into an evaporating dish and subsequently evaporated into space.



## 5.3 | Setting

### ► Check the set temperature of the cooling space:



Press button . The set value is displayed for about 15 seconds.

To change the set temperature push  and than:


### ► Increasing the temperature:

Press the button  to get required value. Press and release the button  to save it.

### ► Decreasing the temperature:

Press the button  to get required value. Press and release the button  to save it.

### ► Manual defrosting:

Press and hold the button  for **4 seconds**. Symbol of defrosting will light **(10)** and defrosting is activated.



*The defrost starts when the evaporator has not sufficient minimum temperature.*

*During defrost the measured temperature is blocked, ie. remains the same. After the defrost termination temperature measurement goes back to normal.*

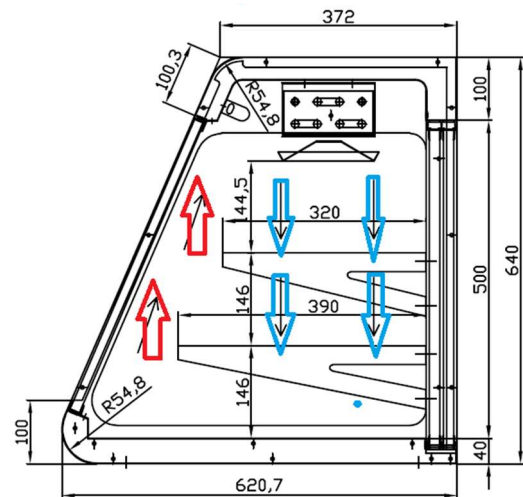
#### 5.4 | Placing of goods in the display case

The showcase is not designed for cooling the goods, but to maintain the temperature of pre-cooled food during its presentation in the display case. Food, whose temperature is extremely higher than the temperature inside the display case, may not be placed in the unit.

Place the goods on the shelves and exhibited display, so that:


- between pieces on shelves is a **gap of at least 1 cm**
- goods do **not exceed the edges of shelves**
- **total weight** of the goods on one shelf **does not exceed** the carrying capacity **per shelf (10 kg)**

**Improper storage** of goods slows the circulation of air inside the display case and **raises its temperature.**



When loading and unloading goods, open and close the door as quickly as possible to shorten the length of time that the door is open, to prevent leakage of cold air (ie heating the interior of unit).

#### 5.5 | Turn off

- 1) Turn off the light (2).
- 2) Turn off the main switch (3).
- 3) Disconnect the showcase from power supply.
- 4) Remove all the goods and clean the showcase, see  6.1 Daily maintenance.
- 5) To prevent mold and unwanted odors, leave the door open to dry up the exhibition space completely.



**Always be aware of touching heated internal parts of the showcase without proper tools, ie hands protection.**

## 6 | MAINTENANCE

Showcase does not require any special maintenance. However, it must be kept clean and remove the residues of exhibited goods and other contaminants.

Instructions for maintenance are obligatory to follow, otherwise void the warranty. Just regular maintenance windows and following all instructions is to ensure its long life and trouble-free function.



*Before starting any maintenance or service work the showcase must be disconnected from the electricity supply by pulling the power plug from the socket, otherwise there is a danger of electric voltage!*

*Before starting any maintenance or service work the responsible person must be thoroughly familiar with all instructions, prohibitions and recommendations contained in chapter 4.*

*Damage caused by improper cleaning and maintenance is not covered by warranty.*

*Elements that were set by the manufacturer or authorized service agent must not be adjusted by the user.*

### Plan of maintenance:

INTERVAL	PART	ACTION	DETAILS
Daily	Exhibition space, shelves and glass	Cleaning	■ 6.1.1
Monthly	Condenser	Cleaning	■ 6.1.2
Quarterly	Basin and evaporator + bottom space	Cleaning	■ 6.1.3
Regularly	The power supply cable	Control	■ 6.1.4
	Doors gasket	Cleaning	

### 6.1 | Daily maintenance

**Daily clearing of exhibition space** from the remnants of the exhibited goods includes:

- Disconnecting the device from power supply.
- Sweeping or vacuuming of the crumbs.
- Washing with damp cloth or towel.



*When cleaning, do not use aggressive cleaning agents or sharp objects. The abrasive and corrosive liquids are not allowed!*

*Never use water stream when cleaning inside and outside parts of unit, there is a risk of electrical short circuits and electric shock.*

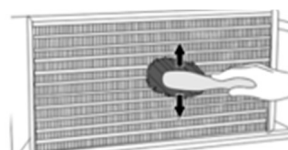
- If it is necessary to polish the front glass and rear doors by ordinary detergent, leave the door open to exhibition space until the showcase dries up completely to prevent mold and unwanted odors.

### 6.2 | Monthly maintenance

Dirt can impede the exchange of heat between the condenser and the environment, which causes an increase in electricity consumption and shortens the life of the compressor. Thus, **each month clean the condenser**:



Cover grid of condenser



- Unscrew and remove the cover grille.

- Use a soft brush or brush to clean the condenser fins. If extremely dirty condenser (fins are clogged with dust and other impurities), use a vacuum cleaner, compressed air or compressed nitrogen to blow through the fins.



*Never use wire brushes and other sharp objects that could damage the condenser fins.*

### 6.3. Quarterly maintenance

Quarterly clean bottom of pan with a vaporizer:

- Disconnect showcase the power supply.
- Empty showcase and allow to reach room temperature.
- Remove the front grille and rear bottom plate of the exhibition space.
- Make sure the bottom of the tub with a vaporizer are not infested debris (crumbs) - if so, use a vacuum cleaner to remove them.
- Clean the entire bottom area.

### 6.4. Regular maintenance

Regularly check the **power cable**:

- Pull out the cord.
- The cable must be in perfect condition, unbroken and untwisted. If there is any damage it immediately repaired or replaced by a qualified person.

### 6.5 Troubleshooting

PROBLEM	CHECK
<b>The unit doesn't cool</b>	<ul style="list-style-type: none"> <li>▶ Shut off the power failure?</li> <li>▶ Is the power cord of electric current?</li> <li>▶ Plug of power is plugged to the wall outlet?</li> <li>▶ There blown fuse or circuit breaker blown?</li> <li>▶ Showcase in defrost mode? (for el. Control unit defrost indicator light)?</li> </ul>
<b>Showcase cool a little</b>	<ul style="list-style-type: none"> <li>▶ Correct temperature?</li> <li>▶ Cooling air circulation is blocked? Or suction opening by the goods?</li> <li>▶ Goods placed too close together?</li> <li>▶ Door is opened or opening their frequency is too high?</li> <li>▶ Condenser is blocked by dust or others?</li> <li>▶ The evaporator and refrigerated wrapped in ice?</li> </ul>
<b>Showcase produces excessive noise</b>	<ul style="list-style-type: none"> <li>▶ All adjustable feet are in contact with the floor?</li> <li>▶ Not adjacent equipment or other related furniture too close to the display case and no vibration compressor?</li> <li>▶ Showcase is in contact with other unwanted objects?</li> </ul>
<b>On the outer surface of the case is condensation (water)</b>	Condensation on the outer surface of the display cases can occur during hot and humid days or depending on the installation site. It occurs when there is high humidity of the ambient air and water from the air coming into contact with cold surfaces. This is normal. In this case, wipe with a dry cloth showcase.
<b>Showcase works, but light does not light</b>	<ul style="list-style-type: none"> <li>▶ The lights on?</li> <li>▶ Damaged LED strip? If so, contact service.</li> </ul>

**6.6. | Errors**

While using showcase to display error messages may appear. Their meaning are as follows:

<b>SYMBOL</b>	<b>ERROR</b>	<b>CORRECTION</b>	<b>RESULT</b>
<b>PR1</b>	Temperature sensor defect.	Turn off and turn on the display case.	Showcase will be switched on and off at regular intervals.
<b>PR2</b>	Evaporator sensor defect.	If the message reappears, contact your service provider.	
<b>COH</b>	Too high condensation temperature – warning	Call the service.	
<b>CSd</b>	Too high condensation temperature - alarm	Call the service.	



*The showcase can be repaired only by an authorized service. In the event of improper or unauthorized service warranty does not apply!*

## 7 | SPARE PARTS AND WARRANTY

### 7.1 | Spare parts

For information about spare parts, please contact your supplier.

### 7.2 | Warranty

The warranty does not cover damage or disruptions caused by incorrect operation, disregarding this instruction manual, using harsh chemical cleaning agents and improper cleaning of the device. The warranty excludes damages resulting from improper installation, which is not in accordance with the manufacturer's recommendations, factually incorrect repairs as well as defects which have been caused by foreign intervention or force majeure.

## 8 | DISPOSAL

Once the service life of showcase expired, it must be properly disposed of.



During the disposal of the showcase and its parts, the operator is obliged to follow the procedure under Art.8 REGULATION OF THE EUROPEAN PARLIAMENT AND COUNCIL REGULATION (EU) No. 517/2014.

Components better be disposed of at the site, which is specialized and thus will be possible to recycle the materials.



*The device nor its parts must not be discarded in the municipal waste!*

*The unit contains electric components, which can cause harm to the environment or health in case of improper disposal.*

**9 | TECHNICAL INFORMATION****9.1 | Technical data**

	<b>Universal</b>	<b>Remote</b>
<b>Dimensions (mm)</b>	1302x620x640	705/1005x620x640
<b>Grid shelves</b>	2	2
<b>Light (W)</b>	21	21
<b>Temperature (°C)</b>	+2 / +12	+2 / +12
<b>Voltage (V/Hz)</b>	230 / 50	230 / 50
<b>Input (W)</b>	250	250
<b>Cooling performance (W)</b>	280	280
<b>Weight (kg)</b>	85	73

**9.2 | Production plate**

1 **Unis cool** *Sample label*

2 Na Baštici 201 Staré Město 73801 Frýdek - Místek Tel.: 558 655 211

3 Typ **Cube II 1000 Inox** **CE** Výrobní číslo  
XXXXXXXXXXXXX 4

5 Napětí **230** V~ Proud **4,5** A  
 Frekvence **50** Hz Příkon osvětlení **2x21** W  
 Klimatická třída **3** Množství **0,25** Kg  
 Chladivo **R 134a** Celková hmotnost **200** Kg  
 Kompresor **GP 16 TB**

6 Datum **22.2.2014**

Pos.	Name	Pos.	Name
1	Producer	4	Serial number
2	Contact	5	Technical data
3	Model	6	Production date

**UNIS COOL, s.r.o.**

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