ariada

REFRIGERATED DISPLAY CASE ISLAND TYPE

BC68 Series

DATA SHEET

OPERATION MANUAL

Volzhsk

TABLE OF CONTENTS

1 GENERAL PRODUCT INFORMATION

1.1 Island-type refrigerated display cases (**BC68** Series) are designed to display, sell and temporarily store pre-cooled foods and ready-to-cook products in trade and public catering facilities.

1.2 These display cases meet the requirements of TR CU 004/2011 on Safety of Low-Voltage Equipment, TR CU 020/2011 Electromagnetic Compatibility and GOST 23833-95.

1.3 The display cases are manufactured in Climatic Modification U in accordance with GOST 15150-69 for operation at ambient temperatures of up to 25°C and relative humidity:

Ambient temperature, °C	12	18	22	25
Max. relative humidity, %	72	65	60	55

Grade N as per GOST 16317-87.

1.4 The display cases are manufactured with the following temperature range:

• Medium-temperature +2°C … +7°C

***Note:** the temperatures are indicated along the boundary of areas, at a height of 150mm from display racks.*

1.5 Product designations:

• medium-temperature display cases:

- BC68-1250 (display case, length 1,250 mm, with low fixed front glass window).

1.6 Possible connection to the Televis remote telemetry system

2 BASIC TECHNICAL DATA AND SPECIFICATIONS

2.1 Basic technical data are provided in Table 1.

Table 1

Item No.	Parameter	BC68-1250
1	Food product area, m^2	1.09
2	Effective cooled volume, m^3	0.16
3	Temperature range, ºC	+2…+7
4	Display rack load bearing capacity, kg	62
5	Max daily power consumption, kW·h	17.5
6	Max current consumption, A	5.9
7	Power supply parameters, V/Ph/Hz	220 / 1 / 50
8	Dimensions, mm Length Width Height	 1,425 1,290 855
9	Max weight, kg	150
10	Cooling medium	R290 refrigerant
11	Protection class	IP 20

3 SCOPE OF SUPPLY

3.1 The scope of supply is provided in Table 2.

Table 2

No.	Item	Quantity
1	Refrigerated display case (assembled, packed)	1
2	Data Sheet	1
3	Controller manual	1
4	Lower front panel	1
5	Lower rear panel	1
6	Rotary wheel with brake mechanism	2
7	Rotary wheel	2
8	Screw M6	16
9	Washer 6	16
10	Lock washer 6	16

4 UNPACKING, ASSEMBLY AND COMMISSIONING

4.1 Upon receipt of the refrigerated display case, check its packaging for any damage, otherwise file a claim against the forwarding company. Transport display cases in upright position only.

4.2 Carefully remove the product from its packaging, while observing all necessary precautions against impacting the external front surfaces of the product.

4.3 Remove the components and documents from inside the product. Carefully read the Data Sheet. Verify the completeness of the supplied product.

4.4 Remove the product from the wooden pallet, unscrew the bolts securing the product to the pallet. Then use M6 screws to mount rotary wheels through washers.

4.5 The product may only be moved within the premises in accordance with the handling scheme indicated on the plate.

4.6 When installing the display case at the place of operation, consider the following:

- to maintain normal operating conditions, an air conditioning system shall be provided, since conventional ventilation does not provide the permissible air humidity levels, affecting the display case operation reliability;
- air flows of more than 0.2 m/s are not permitted. Therefore, do not locate display cases next to doors or in rooms with artificially created air flows;
- eliminate additional heat from direct sunlight, incandescent lamps, hot water and air pipelines (provide at least 1 m distance from the display case to the pipelines), from uninsulated and sun-warmed walls and ceilings;
- do not install the product in places where the air intake to the unit condenser is impeded.

Failure to observe the above installation rules may result in performance issues and increase power consumption.

4.7 Assembly: fix the lower panels on the display case base.

4.8 Remove protective technological film from all product surfaces (including parts made of plexiglass).

4.9 Wash the entire display case from the inside and outside with fresh water not exceeding 60°C and soft detergents, then wipe the display case thoroughly and let dry. When washing, ensure no moisture ingress into the electric devices.

5 ELECTRICAL CONNECTIONS. SAFETY PRECAUTIONS

5.1 This product meets general safety requirements as per GOST R 52161.1-2004, GOST R 52161.2.24-2007, GOST 23833-95, GOST 14254-96.

5.2 Supply voltage shall be 220V with a tolerance of -15% to +10% of the rated voltage, with frequency of 50 Hz with a tolerance as per GOST R 54149-2010.

Note: ***In case your area experiences voltage variations exceeding the specified values, it is advised to connect the product to the mains power supply through a voltage regulator.***

5.3 The product is equipped with a power cable and a plug with a neutral ground contact. Connection to the neutral grounding device is required.

5.4 The product shall be connected to the power supply (Fig. 1) via the circuit breaker providing combined (thermal and electromagnetic) protection with the rated trigger current value of **8.0 A**.

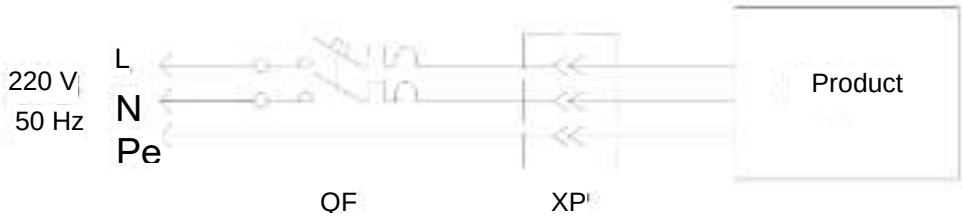

Fig. 1. Electrical connection diagram

QF – automatic circuit breaker.

XP – triple-pole plug-socket EURO connector with a neutral ground contact.

Note*: *Do not operate the equipment with missing or faulty neutral grounding.

IMPORTANT! Do not connect the product using household extension cables, group sockets, etc.

If the power cable is damaged, it shall be replaced by the Manufacturer, maintenance service or qualified personnel in order to avoid danger.

The product shall not be used by persons (including children) with reduced physical, sensory or mental capabilities or without life experience or knowledge, unless they are supervised or instructed on the use of the product by persons responsible for their safety.

Children shall be supervised by persons responsible for their safety to prevent them from playing with the product.

6 OPERATION AND MAINTENANCE MANUAL

6.1 Upon connecting the product to the power supply in accordance with the above rules, switch it on from the control panel and adjust it as necessary.

Note: pre-commissioning, power supply connection and controller configuration shall be performed by service specialists certified for this type of work.

IMPORTANT! If transported at a temperature below +10 °C, the equipment shall be left at an ambient temperature of +18 °C to +32 °C for at least 4 hours before switching on.

The equipment shall be re-connected to the power supply system (after a forced shutdown) no earlier than 3-4 minutes thereafter.

6.2 The control panel is shown in Fig. 2.

1- Electronic controller.
2- Key switch with backlight. Power.
3- Key switch with backlight. Light.

Fig. 2. Control panel

6.3 Electronic controller (1) is designed to automatically maintain temperature in the cooled area and control the defrosting process of the air cooler. The electronic controller operating manual is enclosed with this Data Sheet. Factory settings ensure optimal product operation.

6.4 Switch (2) is used to turn the power on and off. When button (2) is pressed, the product connects to the mains, and the red warning lamp lights up. When disconnected, the lamp goes out.

6.5 Switch (3) is used to turn the lighting on and off.

6.6 The wiring diagram is provided in Figure 3.

6.7 Condensate generated during the evaporator defrost shall be drained into the the evaporation tray.

6.8 Load food products only after the set temperature is reached in the cooled area.

DO NOT exceed the loading limits!

IMPORTANT! All foods and ready-to-cook products shall be pre-cooled.

6.9 Foods and ready-to-cook products shall be evenly arranged in plastic or stainless steel containers. Place them loosely on the display racks and shelves, leaving a distance of at least 6 cm from the walls. The arrangement height shall not exceed 150 mm from the trays. Load rates are provided in Table 1:

- arrange food products evenly;
- food products shall not obstruct the air feed and intake openings;
- do not block ventilation holes.

6.10 Commissioning, adjustment of the refrigeration machine automation devices, maintenance and repair of the product shall only be performed by specialists of either the Manufacturer or organizations that have the appropriate authorization (license) for performing such work. Maintenance information shall be recorded in the Data Sheet (Appendix 2).

6.11 Maintenance.

Uninterrupted and effective operation of the products is ensured by a system of planned preventive measures for care, supervision, diagnostics and all types of repairs performed regularly within the established time frames and aimed at maintaining the equipment in serviceable condition.

List of Maintenance Works

Item No.	Work description	Intervals	Performed by
1	Sanitary washing, cleaning of internal and external surfaces with fresh water not exceeding 60^0C and soft detergents.	Weekly	Technician of the owner company
2	Cleaning dirt from the display case units and dust from the condenser	Weekly	Serviceman of the owner company
3	Inspecting the unit, electrical measurements of network parameters, primary fault detection; checking automation device settings	Monthly	Service center
4	Assembly attachment reliability check, fastener tightening	Monthly	Service center
5	Cleaning electrical equipment and launch protection equipment, checking the reliability of electrical connections, tightening	Quarterly	Service center
6	Checking automatic control devices	Monthly	Service center
7	Checking the unit for refrigerant leaks, their elimination (as necessary)	Monthly	Service center

IMPORTANT! When performing sanitary treatment, preventive maintenance and repair works, the product shall be disconnected from the power supply by removing the plug from the socket, and all foods shall be removed from the cooled area.

IMPORTANT! Do not wash the product under running water as accidental contact of electrical parts with moisture can disrupt the normal operation of the product and the electrical safety system.

6.12 Do not move or relocate display cases by dragging, holding by the body (sides).

IMPORTANT! When moved, the product shall be disconnected from the power supply by removing the plug from the socket, and all foods shall be removed from the cooled area.

6.13 To move the display case, use a loader, a stacker or a transport cart. In order to avoid damage to the glass windows, remove them before moving the display case.

6.14 Display cases shall be transported packaged and in an upright position only. Prior to transportation, properly secure the packaged display case to prevent bumps and movement inside the vehicle. Do not mount more than 3 packaged display cases on top of each other.

6.15 Placing any objects on top of the display case superstructure is strictly prohibited.

6.16 Ensure small objects (debris) do not enter the glass window lower edge installation and fixing grooves.

7 STORAGE, TRANSPORT AND HANDLING

7.1 Storage, transport and handling shall be performed in accordance with GOST 23833-95, Clause 9, Transportation and Storage, taking into account the handling marks on the equipment packaging.

7.2 During storage, the safety and integrity of the equipment, as well as of the components packed in accordance with the technical documentation of Ariada, CJSC shall be ensured.

7.3 Do not store equipment in the open air, keep unprotected structural elements from direct sunlight, precipitation, etc.

8 ACCEPTANCE AND PACKING CERTIFICATE

Display case

Serial number

Compressor manufacturer (brand)

compressor model

compressor No.

Conforms to

– TR CU 004/2011 On Safety of Low-Voltage Equipment in part of GOST 14254 requirements observance;
– TR CU 020/2011 Electromagnetic Compatibility in part of GOST R 51318.14.1-2006, GOST R 51318.14.2-2006, GOST R 51317.3.2-2006, GOST R 51317.3.3-2008 requirements observance.
– Technical Specifications TU 5151-016-12906390-2003 and is fit for service.

The MANUFACTURER has provided

Declaration of Conformance: **EEU N RU Д-RU.HB27.B.01919/19**

Validity: **December 25, 2019 through December 24, 2024.**

The packaging complies with the technical documentation.

Date of manufacture _____

L.S.

Person responsible for acceptance and packaging_____

Manufacturer: Ariada, CJSC, PO box 25, Volzhsk, the Republic of Mari El, 425000, Russia
Telephone: (83631) 43133; Fax: (83631) 43133, 43045
E-mail: info@ariada.ru

9 **WARRANTY**

Warranty shall be provided for free elimination of factory defects, the credibility of which is recognized by the Manufacturer or a specialized organization. Warranty obligations can be fulfilled by a specialized organization that has a relevant agreement with the Manufacturer.

9.2 The warranty period for the product is set by the Manufacturer and is **12 months** from the date of actual shipment of the product from the Manufacturer.

9.3 **Warranty obligations cease to apply** if:

- all rules of transport, handling, storage, installation and operation specified in the data sheet are not fulfilled;
- commissioning and automation device setting are performed by an organization that has no relevant permit (license);
- there is no contract available on product maintenance by a specialized organization;
- repairs are performed by non-authorized personnel;
- the integrity of factory equipment seals or seals made by the supplier is violated;
- consumables purchased other than from the equipment supplier are used.

9.4 The product warranty does not cover maintenance during the warranty period.

9.5 Commissioning shall be performed by any of the specialized organizations with the appropriate certification.

9.6 The customer shall enter into a maintenance contract with a specialized organization within **30 days** upon product delivery.

9.7 The warranty applies only if the following documents are available:

- Commissioning Certificate (Appendix 1);
- Mechanical Condition Report (to be drawn up by the Customer);
- maintenance contract with a specialized organization.

The Certificates shall be signed by the Customer, a specialized organization and certified with the appropriate seals. The absence or failure to provide the Manufacturer or a specialized organization that has the right to perform product warranty repairs, the above documents entitles the latter to refuse to fulfill the warranty obligations.

9.8 **The warranty does not cover** units and parts of glass, as well as lighting equipment.

9.9 In case the Manufacturer's specialists or a specialized organization that has the right to perform warranty repairs establish the facts that indicate the Customer's fault in the product failure, the latter undertakes to pay all the costs that the above organizations incurred when providing specialists. Therewith, the obligation to prove the absence of fault lies with the Customer.

9.10 **The warranty period is not extended** in case of repair or replacement of parts and components.

9.11 Full average service life: at least 12 years.

10 DISPOSAL

10.1 In accordance with the waste disposal regulations in force in each individual country, if a refrigerated display case is disposed of, it shall be dismantled so that its parts can be disposed of or recovered accordingly. The refrigerating components shall not be considered as solid urban waste.

10.2 The following materials were used in the manufacture of the display case:

- Galvanized steel: display case housing and internal parts.
- Metal profiles and pipes: lower frame.
- PVC profiles: shockproof profiles.
- PU foam (polyurethane foam): thermal insulation.
- Glass: front glass window.
- Plexiglass: side glass window, air deflectors.

10.3 The equipment uses refrigerants with a high greenhouse warming potential (GWP). **Therefore, cutting and/or separating the components of the cooling circuit is prohibited, such components shall be transferred in their entirety to specialized centers for the recovery of cooling gas.**

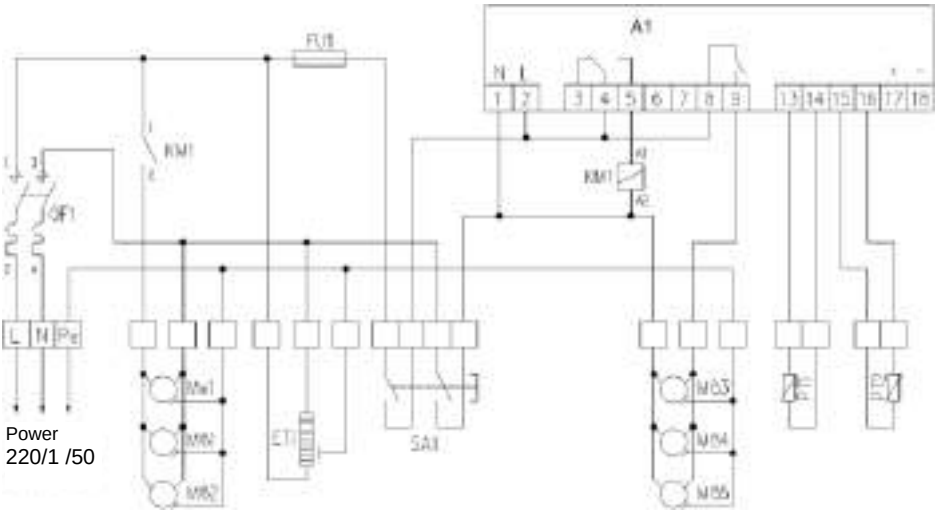

Fig. 3. Wiring diagram of BC68-1250 island refrigerated display cases

Figure 3 legend:

A1 – electronic controller ID 974;
SA1 – switch;
QF1 – automatic circuit breaker;
FU1 – fuse
ETi – evaporator heater;
PT1 – chamber temperature sensor
PT2 – evaporator temperature sensor
KM1 – compressor magnetic starter
Мк1 – compressor motor
Мв3 - Мв5 – evaporator fan motor;
Мв1 , Мв2 – condenser fan motor.

***Note:** the Manufacturer reserves the right to introduce minor changes to the product electrical circuit and design that do not impair the technical characteristics of the product, without reflecting such changes in this Data Sheet.*

Appendix 1

Commissioning Certificate

This Certificate is drawn up on _____ ___ 20___ by the Refrigerated Display Case

owner_____

_____

Name and address, position, full name

and a representative of a specialized organization that the Refrigerated Display Case _____ Serial No._____ manufactured by Ariada, CJSC on _____ ___, 20___ is commissioned by the

electrician_____

_____

Name of the organization, full name

Certificate on the right to install and maintain commercial refrigeration equipment No._____ issued on_____ ____ 20___ by

_____

Name of the organization having issued the certificate

The Owner _____ _____

Signature Full name

The representative of the specialized organization _____ _____

Signature Full name

L.S.

Appendix 2

Information on maintenance and repair works performed during the warranty period.

Maintenance date	Maintenance results (seal of the service center)	Maintenance date	Maintenance results (seal of the service center)