

Unicont SPb Ltd

**DC-DC converter
DC-108**

Technical Documentation

(108-1-09032011)

St. Petersburg
2011

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1. Purpose

DC-DC converter DC-108 is intended for power supply of different marine equipment with stabilized voltage 5/12/24 VDC (depends type of the device) and galvanic isolation of input and output circuits.

2. Delivery Set

- | | |
|---------------------|---------|
| 1. Device DC-108 | 1 piece |
| 2. Operation manual | 1 piece |

3. Technical specifications

Available models

Model	Power	Max. Current	Input Voltage	Output Voltage	Eff.	
12/5 – 50W	50 Watt	10 A	9..18 VDC	5 VDC	70%	
24/5 – 50W			19..36 VDC		73%	
48/5 – 50W			36..72 VDC		76%	
12/12 – 50W		4,2 A	4,2 A	9..18 VDC	12 VDC	72%
24/12 – 50W				19..36 VDC		75%
48/12 – 50W				36..72 VDC		78%
12/24 – 50W		2,1 A	2,1 A	9..18 VDC	24 VDC	74%
24/24 – 50W				19..36 VDC		80%
48/24 – 50W				36..72 VDC		83%
24/12 – 150W	150 Watt	12,5 A	19..36 VDC	12 VDC	75%	
48/12 – 150W			36..72 VDC		77%	
96/12 – 150W			72..144 VDC 85..132 VAC		79%	
24/24 – 150W		6,3 A	6,3 A	19..36 VDC	24 VDC	77%
48/24 – 150W				36..72 VDC		80%
96/24 – 150W				72..144 VDC 85..132 VAC		82%

Device model specified on the plane (left side of a device case).

Isolation resistance:	100MΩ@500VDC
Type of protection:	IP 22
Overall dimensions:	169 x 245 x 59,5 mm
Weight:	2 кг
Storage temperature:	-30..+70°C
Working temperature:	-10..+60°C

- Galvanic isolation of a output power from a power line
- 2 plugs for loads connection (only for 150W models)

4. Device installation

DC-108 made in the metal case with fastening for installation on vertical wall inside of a ship. On the side wall of a case are power switch and fuse holder.

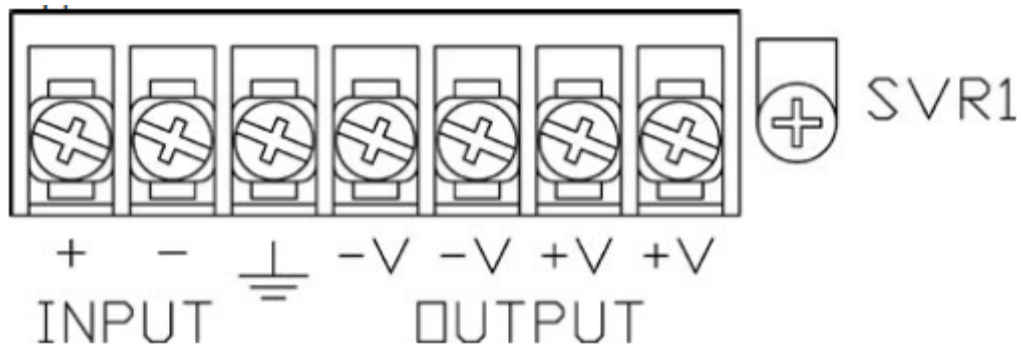
DC-108 consume 19-36(9-18/36-72) volts of a direct current and transform it in stabilized current of 24 VDC.

See installation dimensions on Figure 1.

Input power connect to terminals “+” and “-” of “INPUT” group.

Loads connect to terminals “+V” and “-V” of “OUTPUT” group.

Use trimming resistor SVR1 for tuning of output voltage, placed to the right of terminal block TB1.



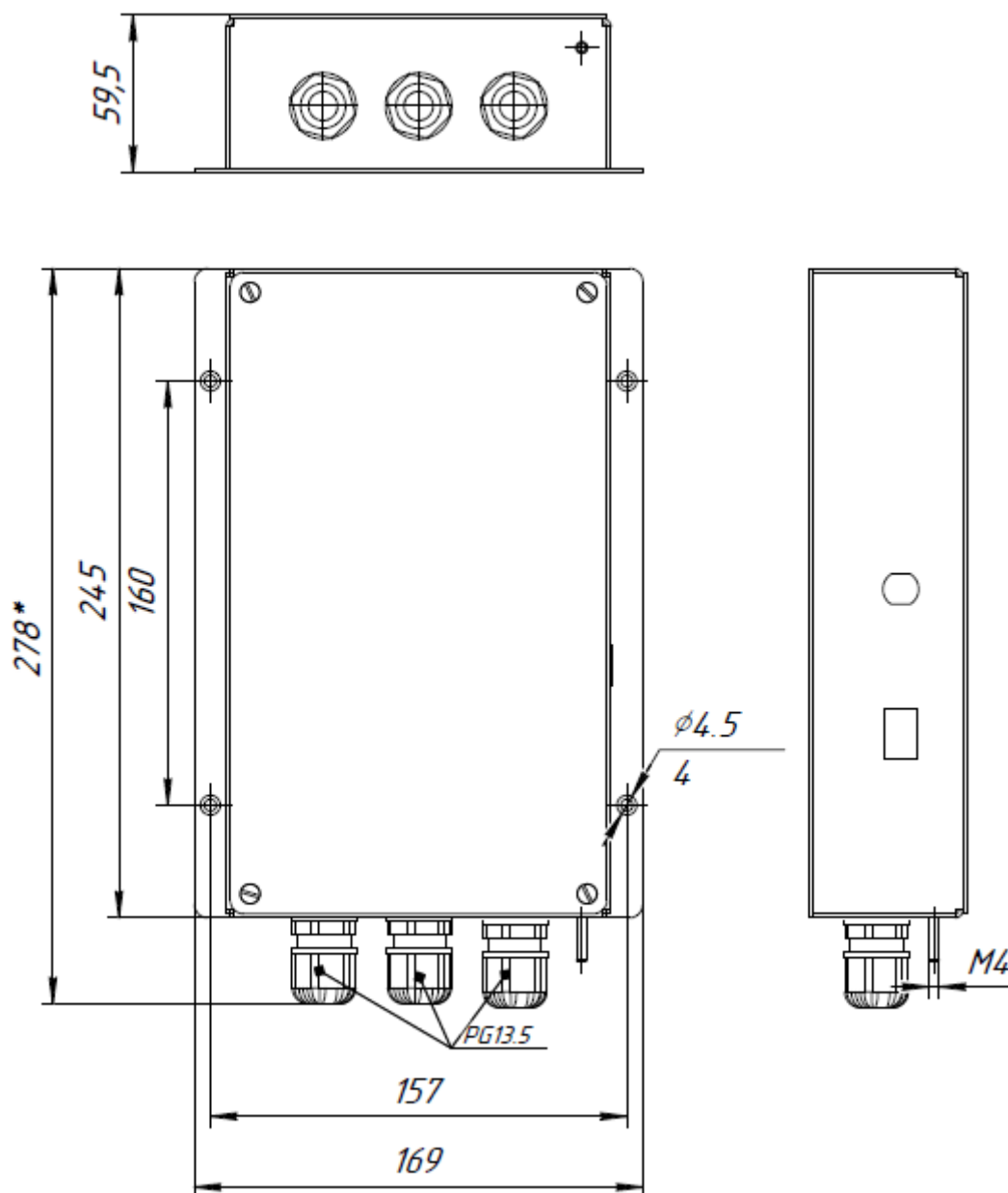


Figure 1 Installation dimensions DC-108.

5. Transportation and Storage

The battery charger shall be stored in heated space at air temperature of +5 °C to +35 °C (maximum values of -30 °C to +70 °C), at relative humidity of air not exceeding 95 % at temperature of +25 °C and content of dust, oil, moisture and aggressive admixtures in the air not exceeding the norms envisaged by GOST 12.1.005-88 for the working zone of production areas.

The device shall be transported in transport container of the manufacturer in closed transport.

Means of transport:

- automobile and railway closed transport (covered wagons, universal containers)
- by air (in pressurized and heated bays of airplane)
- by sea (in dry service spaces).

The device shall be transported in accordance with the transport regulations in force for the particular transport.

During handling operations and transportations strictly observe the requirements of handling marks on boxes and do not allow bumps and impacts which can affect preservation and serviceability of the device.

Packed devices shall be reliably secured in vehicles.

After storage in stores or transportation at temperature below +10 °C the devices shall be unpacked only in heated spaces after keeping them unpacked in under normal climatic conditions for 12 hours.

6. Warranty

The manufacturer guarantees the unit DC-108 complies with this manual provided that the operation, transportation and storage conditions are adhered to during the warranty period.

The unit's warranty period expires 24 months from the date of its shipping from the manufacturer's storehouse.

Within the warranty period, the owner is entitled for a free repair, or a replacement of a separate part, provided that the malfunction occurred through the manufacturer's fault.

Warranty repair is provided if the unit is submitted with the manufacturer's label and a legible serial number available on it, as well as this operating manual.

The manufacturer is not responsible and cannot guarantee the unit's operation:

1. After the warranty period is over;
2. In case of the failure to observe the unit's operation, transportation, storage and installation rules and conditions;
3. If the unit is in an unmarketable condition, or has a damaged body, and other causes beyond the manufacturer's control;
4. If self-made electrical devices were used.
5. If there was an attempt to repair the unit by a person who is not an authorized representative of the manufacturer.

If the owner loses this operating manual or the manufacturer's label with a serial number, the manufacturer shall not provide their copies, and the owner shall be divested of the right for a free repair during the warranty period.

Upon the warranty expiry, the manufacturer shall facilitate the repair of the unit at the owner's expense.

Note: in case of warranty repair, the unit's disassembling from the installation site and its delivery to the manufacturer's service center are done at the owner's expense.

Visit the manufacturer's website www.unicont.spb.ru (section "support/warranty") to find:

- forms to fill in claims,
- full warranty description;
- full description of the warranty service rendering procedure.

The manufacturer service center's address and contact details:

Unicont SPb, Ltd.

Bld. 26E Kibalchich Str., Saint Petersburg, 192174, Russia

tel.: + 7 (812) 622 23 10, +7 (812) 622 23 11

fax: +7 (812) 362 76 36

e-mail: service@unicont.spb.ru

7. DATE OF PACKING

DC-DC converter _____ DC-108 _____ № _____
 name of article designation serial number

Packed _____
Unicont SPb Ltd, Russia.
 Manufacturer

according to the requirements of the current technical documentation.

_____ _____ _____
 post signature clarification of signature

 year, month, day

8. ACCEPTANCE DETAILS

DC-DC converter _____ DC-108 _____ № _____
 name of article designation serial number

was manufactured and accepted in accordance with the regulatory requirements of the state standards and applicable technical documentation, and is suitable for operation.

Quality control representative

Stamp _____
 here signature clarification of signature

 year, month, day

9. DATE OF COMMISSIONING

DC-DC converter _____ DC-108 _____ № _____
 name of article designation serial number

The unit has been put into operation.

Date of installation: _____

Place of installation: _____

Person in charge of installation: _____