

Lab Power Supply Model DC 75-300

EUROSEP Instruments

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EUROSEP Instruments

DECLARATION OF CONFORMITY

According to directive 22ISO/CEI and EN45014 standard

Manufacturer Name **EUROSEP Instruments**Manufacturer adress Bât. LE CERAME
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We declare, under our own responsibility, that the following product :

Product name **LAB POWER SUPPLY**
Référence **DC 75-300**
Option None

has been designed and manufactured to the technical specifications of the product and conform in all respects to the relevant standards and regulations in use and especially to :

Low Voltage Directive :

CEI 1010-1 (1990) + Amendement 1 (1992)
Overvoltage category :
Pollution degree :

Electromagnetic compatibility :

EN50081-1 / EN 55011 Classe A Conducted and radiated disturbances
EN 61000-4-2 / EN 50082-2 Niveau 3 Electrostatic discharges
IEC 1000-4-3 / EN 50082-2 Niveau 3 Electromagnetic radiations
EN 61000-4-4 / EN 50082-2 Niveau 3 Fast transients
EN 61000-4-5 / EN 50082-2 Niveau 2 Low transients

According to the European Directives :

Low Voltage : **73/23/CEE**
Electromagnetic compatibility : **89/336/CEE modified 92/31 CEE**CE marking affix date : **1996**Cergy Saint Christophe, february 15th, 1996.**EUROSEP Instruments**

7. TROUBLESHOOTING

7.1. Main switch doesn't light on while switched on.

- Check that AC socket is properly connected,
- Check that AC line cable is properly connected,
- Ensure that Power Supply voltage is properly selected 110/220V,
- Check the fuses are located in the fuse holder and if so, check their functioning.

7.2. Lamp doesn't light on when switched on even if ignition impulses can be heard.

- Replace lamp with a new one,
- If problem persists, please contact EUROSEP Technical Department.

7.3. Lamp doesn't light on when switched on and the ignition pulses train can not be heard.

- Contact EUROSEP Technical Department.

7.4. Lamp is off during operating.

- Check all ventilation holes are free. After freeing them, switch off about 15 min, then switch on,
- Replace the lamp,
- If problems persist, contact EUROSEP Technical Department.

Lab Power Supply Model DC 75-300

The arc lamp power supplies of the EUROSEP range have been developed in order to allow the operation of arc lamps under the best circumstances.

These power supplies are suitable for xenon lamps up to 300 watts.

The EUROSEP power supplies are approved by different lamp suppliers and are particularly suitable for both the above types of lamps as well as for all kind of similar light sources.

The average life time of a lamp strongly depends on the power supply performances, especially on its residual ripple and on the current impedance in respect with the main AC fluctuation.

At the development level, these two points were particularly taken into consideration.

Applications :

- Medical endoscopy,
- Imagery,
- Optic Fiber transmission,
- Analytical instrumentation,
- Fluorescent microscopy,
- Solar simulation etc.

EUROSEP Instruments

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7. TROUBLESHOOTING

CERTIFICATE OF CONFORMITY

6. TECHNICAL CHARACTERISTICS

6.1. Electrical specifications

Maximum lamp power (Watt)	300
Current range (Amper)	5-22
Lamp voltage(Volt)	12-30
Ignition voltage(kVolt)	25
Current stability	<1%
Residual ripple	<1%
AC voltage selector (Volt)	115/230(commutable)
AC frequency selector (Hz)	50/60

6.2. Technical specifications

Input current specifications

AC input voltage	115/230 VAC
Frequency	50/60 Hz
Phase number	1
Input power	650VA/410W

Timer specifications

Voltage (DC)	12-24V
Current	1 mA
Highest registered time	Max. 99.999,9 hours
Resolution	0,1 hours
Precision	0,04%

General specifications

Operating temperature	0°C to +40°C
Rated humidity	max. 95% at 38°C
Dimensions (HxWxL)	120x283x250mm
Weight	3,80 Kg



WARNING

EUROSEP Instruments warrants only the lamps delivered by itself in accordance with the life time warranty for the lamp manufacturer. Warranty is void for any other lamps even operating with our power supplies.

This warranty is strictly limited to the replacement of the material recognized as damaged.

To enjoy full warranty, the purchaser commits himself to return the damaged lamp, after request of the return form to EUROSEP Instruments.

The lamp warranty applied by EUROSEP instruments is limited to the same warranty than the lamp supplier applies on his own product.

EUROSEP Instruments shall not be responsible for damages to any instrument resulting from misuse, negligence or accident, lack of supervision or maintenance, damage by act of God or use of the instrument not in conformity with the specifications.



WARNING

1. OPERATING PRECAUTIONS

Before handling, installing or operating the power supply, read first the followings carefully :

When your Power Supply is on for the first time, check the AC line and Power Supply selected voltages are the same.

Check the main plug has a proper ground connection.

Never switch on the unit without making sure the lamp is connected to the output.

Before replacing the lamp, switch off the power supply, unplug it from the main AC supply and wait until the complete unit comes down to the ambient temperature. Then disconnect the 2 cables between the power supply and the lamp housing.

Never switch on the instrument unless the rear and side ventilation holes are completely free.

When connected with a xenon lamp, the power supply produces high luminous radiations and also, a low rate of ultraviolet radiations. All these kinds of radiations may produce damages to the human eyes and, in case of ultraviolet radiations, to the skin. Never expose unprotected eyes to the luminous beam.

Never touch a light source with the fingers. The lamp can be held by mean of a filter paper or a piece of non fluffy clean cotton. Anyway, wait until the lamp is completely cold.

2. INTRODUCTION

2.1. Lab Power Supply DC 75-300 and its accessories kit

While unpacking the instrument, check that the following accessories are really present :

- The power supply,
- The present instruction manual,
- An AC line cable (suits to European norms),
- A 3.15 A (5x20mm) fuse kit installed inside the main socket.

If any item is missing, please contact EUROSEP Instruments or your local distributor who will supply you immediately.

Lamp connecting cables are delivered on request and have to be ordered separately.

2.2. General warranty conditions

EUROSEP Instruments reserves the right to make changes in specifications without notice.

EUROSEP Instruments will not accept any reliability for damages directly or indirectly caused by incorrect handling according to the present instruction manual.

EUROSEP Instruments warrants each of the products manufactured by it to be free from defects in material and workmanship in normal use and service from the date of delivery to the original purchaser for a period of one year. EUROSEP Instruments's obligation is limited to repairing or replacing at its factory any instrument or part there of (except parts which by their nature are normally required to be replaced periodically consistent with normal maintenance) which shall, within the warranty period, be returned to EUROSEP Instruments with shipping costs prepaid.

EUROSEP Instruments shall not be responsible for damage to any instrument resulting from misuse, negligence or accident, or resulting from repairs or alterations made by any person or firm not duly authorized by EUROSEP Instruments.

EUROSEP Instruments shall not be liable for damage to persons or property.

5.1. Different types of lamps

REFERENCE EUROSEP	REFERENCE LAMP SUPPLIERS	CHARACTERISTICS		
		I(A)	T(V)	P(W)
XC.75.2N.OS	XBO 75W/2	5,4	14	75
XC.75.2.OS	XBO 75W/2 OFR	5,4	14	75
XC.100W.OS	XBO 100W OFR	6,7	15	100
XC.100.R.OS	XBO 100W/45R	7,0	14	100
XC.150.1N.OS	XBO 150W/1	7,5	20	150
XC.150.1.OS	XBO 150W/1 OFR	7,5	20	150
XC.150.4.OS	XBO 150W/4	7,5	20	150
XC.150.S.OS	XBO 150W/S	7,5	20	150
XC.150.CR.OS	XBO 150W/CR OFR	8,5	17,5	150
XC.180.R.OS	XBO 180W/45C	14	12	180
XC.250.OS	XBO 250W	14	18	250
XC.250.4.OS	XBO 250W/4	14	18	250
XC.75.CER.I	LX 75	7	12,8	75
XC.150.CER.I	LX 150	13	18	150
XC.175.CER.OR	LX 175	14	18	175
XC.300.CER.OR	LX 300	21	14	300



WARNING

Anyway, never touch the window of the light source or the reflector with the fingers. The lamp only can be held with an optical paper or a piece of non fluffy clean cotton. Wait until the lamp is completely cold.

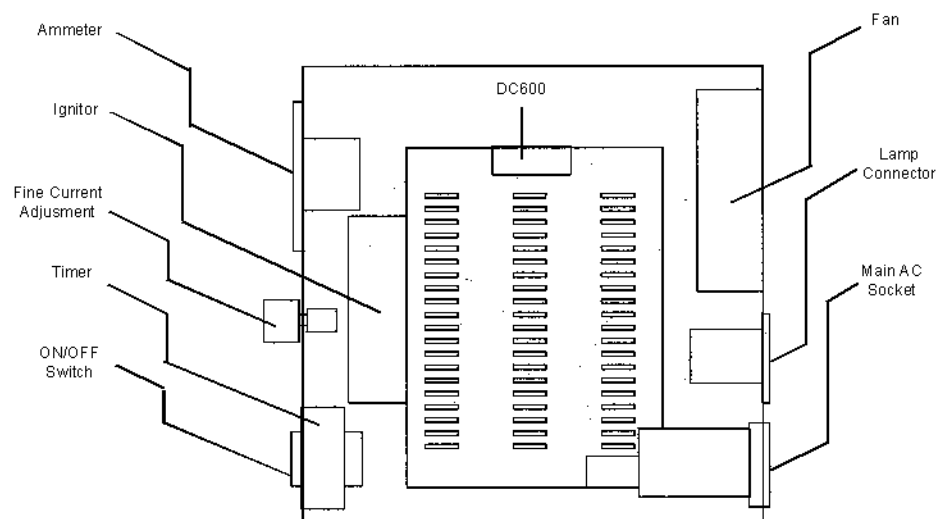
5.2. Lamp life time, lamp warranty

The life time of lamps depends on several factors like the number of ignitions, the intensity of the current higher than its nominal value, a bad cooling, a too high level of ripple, etc.

All parameters supposed to modify the life time of the lamp were optimized in order to insure as long as possible a long life time.

The power supplies manufactured by EUROSEP Instruments allow the use of arc lamps under the best conditions in accordance with the lamp supplier specifications.

4.3. Inside arrangement



5. LAMP

In order to give users an optimum run of the light source, the supply devices are made in accordance with the concerned lamp suppliers technical specification.

Average life time lamp is closely linked to power supply results intended to provide its use, the most important lies in pureness current given by the power supply and the regulation system integrated into circuit, in order to clear possible variations of the AC main voltage.

The arc lamp stability also depends on the respect of electrical lamp characteristics as well as voltage curves vs current, dynamic slope, etc.



3. INSTALLATION OF THE LAB POWER SUPPLY

Before installing the unit, see paragraph 1 "Operating Precautions". The power supply has to be placed on a plane and stable surface, away from heat sources.



Never place on the power supply things may close up the ventilation holes necessary for heat exhaust.

Never block off the rear panel and especially the ventilation holes. At least a 15 cm distance behind the unit has to be kept.

3.1. Electrical connexion

Make sure that AC main Input and Power Supply' electrical configuration are compatible (110 or 220 Volts, 50 or 60 Hertz).

Power Supply main socket is located on the rear panel. This socket suits to European norms and is composed of : Phase, Neutral and Ground.

For a good and secure operating, under good technical conditions, the Power Supply must be connected with a high quality ground.

3.2. Checking the fuses

Electrical protection is assumed by two 3,15 A fuses of 5 x 20 mm. (Fuse type 5X20; 3,15A/250V HA fast)

Fuse replacement when damaged must be performed as follows :

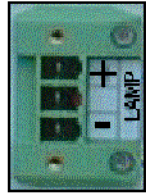


Fig. 1 : Main AC socket

- Unplug the Power Supply from the AC line (cable on the rear panel),
- Extract fuse holder from the main socket with a flat screwdriver (see fig.1),
- Pull out the damaged fuse(s),
- Insert the new fuse(s) after checking their specifications (3,15 A/250 Volts),
- Close the fuse holder,
- Plug the Power Supply AC line cable in the main socket.

3.3. Lamp connection (output).

Lamp output connection is located on the rear panel of the Power Supply. Lamp connection procedure is as follows :



Lamp Connector

- Unplug the Power Supply from the AC line,
- Unscrew the two mounting screws from the male connector,
- Connect the two cables on position 1 and 3 on the male connector (medium position is free) according to the polarities as mentioned on the female connector.
- Replace the male connector by screwing it tight the connector fixed on the power supply.



WARNING

Use High Voltage cable to connect the lamp on the Power Supply because for lamp ignition the power supply deliver a high voltage (around 30kV).

3.4. Switching ON the Lab Power Supply

Before the first switching on the power supply, check the following points :

- The lamp is properly connected,
- Connecting cables between the Arc Lamp and the Power Supply are well connected on its rear panel,
- Fuses are assembled in the fuse holder (AC line : 110/220V),
- Holes located on the side and fan at the rear panel are not covered,

When all these points have been checked, and after having connected the AC line cable on the socket located on the rear panel, switch on the main button on the right side of the front panel.

The main switch is illuminated (green) when the Power Supply is on and after some ignition pulses (about 2 or 5 seconds), the lamp is on.

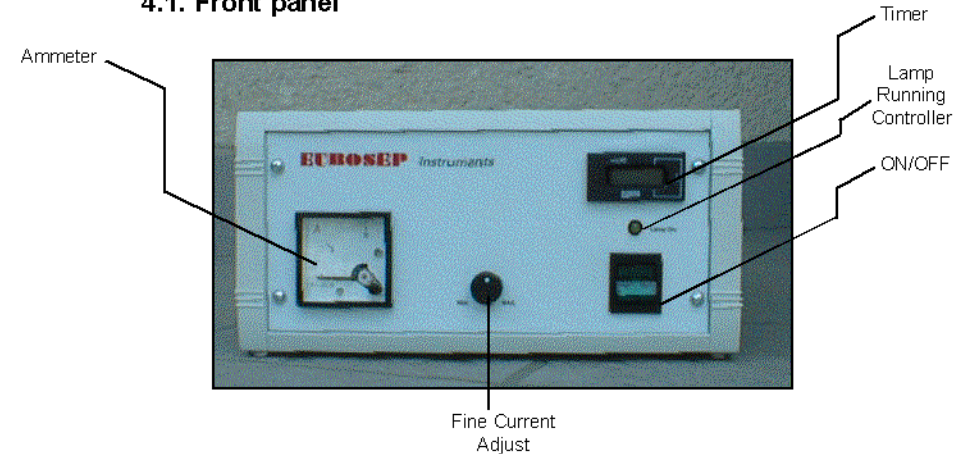
If the lamp is not on before the ignition pulses train has stopped, switch the power off and switch it on again.

If the lamp doesn't light on, see Paragraph 7. "Troubleshooting".

4. DC 75-300 POWER SUPPLY DESCRIPTION

This paragraph will explain the different controls on the rear and front panels as well as the description of the different Power Supply internal elements.

4.1. Front panel



4.2. Rear panel

