



STATRON

Gerätetechnik GmbH

regulator type 2224.9



The intended application of the power supply unit covers:

- link and operation of low-voltage consumers with an operating voltage between 0 and 30 VDC. The power input of the consumer may not exceed 5 A.

Note! Absolutely read!

- Read this guidance exactly. With damage, which is caused by neglect of the guidance, the warranty claim goes out. For damages we do not take over adhesion.

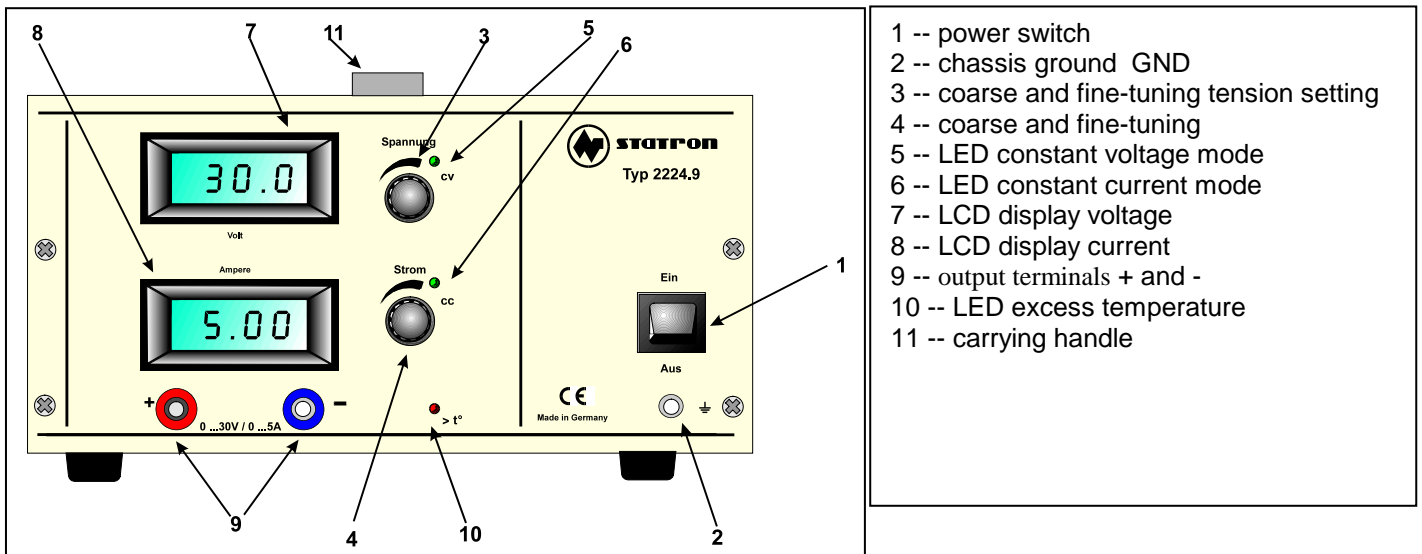
1. introduction

this power supply unit is universally applicable with its infinitely variable adjustment possibilities of voltage and current for school, occupation, hobby etc.. An electronic current limiting protects the power supply unit against overloading. Output voltage and - current are electronically stabilized and infinitely variable adjustable. Thus the electronic restraint current can as adjustable Current limiting to be used, in order to protect consumers against a too high power input. In the case of an overloading the output voltage is then lowered accordingly (in the case of short-circuit on close 0V). With removal of the overload the output voltage adjusted before resets itself automatically. The respective operating point - voltage - (u) - or restraint current (i) - is displayed by one red LED each. The adjusted values are readable over 2 LCD displays or analog displays each. The voltage or current adjustment is made by one double button each (rough- fine). Additionally a change .

2. Safety instruction

- 2.1 The power supply unit is in protection class I. The safety measures comply with DIN EN61010 and DIN EN 60950. The transformers comply with DIN EN 61558 and have passed the primary/secondary 3.75 kVeff tests.
 - 2.2 Check that the protective grounding conductor (yellow/green) is not disconnected either from the mains cable or in the unit, since a disconnected protective conductor may lead to a risk of death. Also check that the insulation is not damaged or destroyed.
 - 2.3 Power supply units must be kept out of the reach of children!
 - 2.4 In commercial establishments, the safety regulations of the professional trade association for electrical appliances and equipment must be observed.
 - 2.5 In schools, educational establishments, hobby and independent workshops, there must be careful supervision that power supply units are operated by trained personnel.
 - 2.6 When opening covers or removing components, apart from when this can be done by hand, live parts may be exposed. Connections may also be live. Before adjustment, maintenance, repair or replacement of components, the unit must be disconnected from any power source, if opening the unit is necessary. Thereafter, if adjustment, maintenance or repair of the open unit when it is connected to the power supply is unavoidable, this may only be carried out by a specialist engineer familiar with the associated risks and relevant regulations.
 - 2.7 The capacitors in the unit may still carry a charge, even when the unit is disconnected from any power supply.
 - 2.8 Check that only fuses of the type and fuse current rating indicated are used as replacements. The use of repaired fuses or bridging of the fuse holder is not permitted. The unit is protected against overloading and short-circuits. If the primary fuse melts, there is a serious fault which must be dealt with by a specialist engineer. After successful repair, a new fuse link can then be installed by an engineer.
 - 2.9 Do not switch on the power supply unit if it has been moved from a cold to a warm place. In unfavorable conditions, the condensed water released on thawing can destroy your unit or cause life-threatening voltages at the output terminals. Ensure that the unit can warm up to room temperature without any adjacent mains current.
 - 2.10 When working with power supply units, you are not permitted to wear any metallic or conductive jewelry like chains, bracelets, or similar.
 - 2.11 Power supply units are not permitted for use on human beings or animals.
 - 2.12 Series connection of the outputs of one or more mains power units causes life-threatening voltages (>35 VDC).
 - 2.13 The vents on the mains supply units must not be covered! The units must be placed on firm, non-flammable surfaces, so that the air can enter unhindered. Cooling of the appliances occurs by forced ventilation.
 - 2.14 The mains supply units and the consumer loads connected to them must not be operated without supervision. Measures must be taken to ensure the safety and protection of connected loads against effects caused by the mains power supply unit (e.g. overload, breakdown of the mains appliance) and by the connected loads themselves (e.g. current consumption above the permitted level).
- Warning! Sensitive consumer loads must be protected against damage by additional external measures!
- 2.15 In case of fault, power supply units can output voltages over 50V DC, which causes risk, even if the specified output voltages of the units are lower.
 - 2.16 When working with electrical voltages, only tools expressly permitted for the purpose are to be used.
 - 2.17 The outputs of the power supply units (output bushes/terminals) and leads attached to them must be protected against direct contact. The leads used must therefore have a sufficient level of insulation and/or dielectric strength and the contact points must be protected from being touched (safety bushes).
 - 2.18 Connection of uninsulated metallic leads and contacts must be avoided. All of these points must be protected with suitable, non-flammable insulation material or with other measures. The electrically conductive components of the connected loads must also be protected from direct contact by appropriate measures.
 - 2.19 If it becomes apparent that safe operation is no longer possible, the unit must be disabled and secured against unintentional operation. It is apparent that safe operation is no longer possible when:
 - the unit or the mains cable show visible signs of damage
 - the unit no longer works
 - it has been stored for a long time under unsuitable conditions
 - it has been transported under difficult conditions

3. Bedienungselemente



4. Line-up

a) The euro - connector of the power supply unit into

- a plug socket 230V/50Hz and you switch link putting you for earthing contact on the power supply unit over the power switch.

- Note! With longer operation with max. current consumption (5,0A) or in the case of short-circuit the radiator

box in the power supply unit becomes very warm. An overloading of the power pack is displayed by the red LED "temperature rise ". At the same time by lowering the original data of the longitudinal automatic controllers of the regulator against thermal overloading one protects.

Pay attention therefore absolutely to a sufficient ventilation of the power supply unit covering it never the ventilation slots at the device lower surface and at the rear wall the air outlet opening of forced cooling. Absolutely make sure when connecting a consumer that this is not attached in the switched on status. A switched on consumer can lead with the link to the output terminals of the power supply unit to a sparking at the connecting terminals, which again

b) Adjustable of the voltage

Turn first the adjusting knob for the current limiting a little to the right (in the clockwise direction), until the LED (= light emitting diode) for current limiting goes out. In the same instant the LED for the voltage adjustment begins to light up. Now you can adjust the desired output voltage. The LCD display displays the adjusted output voltage.

c) Adjustment of the current limiting closing it the output

terminals with switched off power supply unit briefly. Switch then the network on. The display for output current displays,

depending upon adjustment of the adjusting knob for current limiting, a value. Stop the current limiting, i.e. the "maximum stream ", with which the power supply unit is to limit. After adjustment they open the short-circuit with switched off power supply unit, since otherwise an outline spark can develop. Series connection / parallel connection around optimal base values to achieve and overloading avoid should become preset the sources with for instance the same original data. Max. 2 sources in series may do geschalten to become.

Note! Absolutely consider the safety notes with paragraph 2 of this guidance.

Technische Daten

operating voltage:	: 230 V AC +7/-5%
frequency:	: 50 bis 60 Hz
power input:	: max. 1,2A
output voltage:	: 0,005 30 V
output current:	: 0,0035 A
voltage stability with +7/ -5% mains fluctuation:	: < 2 mV
load compensating with 100% load change:	: 30 mV
current stability with +6 / -10 % mains fluctuation:	: 3 mA
remaining ripple with nominal load:	: ca. 1mV _{eff} bzw. 3 mA _{eff}
acting voltage display:	: LCD with 3 digits
current display:	: LCD with 3 digits
weight:	: ca. 6 kg
dimensions (B x H x T):	: ca. 260 x 150 x 230

site conditions

operating temperature area:	: +10 °C bis +35 °C
Air humidity:	: max. 85 %
air pressure:	: 800 bis 1333 hPa

Statron Gerätetechnik GmbH

Ehrenfried-Jopp-Straße 59

15517 Fürstenwalde

Tel.: (03361) 37 21 01

Fax: (03361) 37 21 03

e-Mail : statron@statron.de

Internet: www.statron.de