



**STATRON**

Gerätetechnik GmbH



Operating instruction lab  
power supply unit  
**type 2225.2**



**The intended application of the power supply unit covers:**

- link and operation of low-voltage consumers with an operating voltage between 0 and 24 VDC. The power input of the consumer may not exceed 6,0 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.

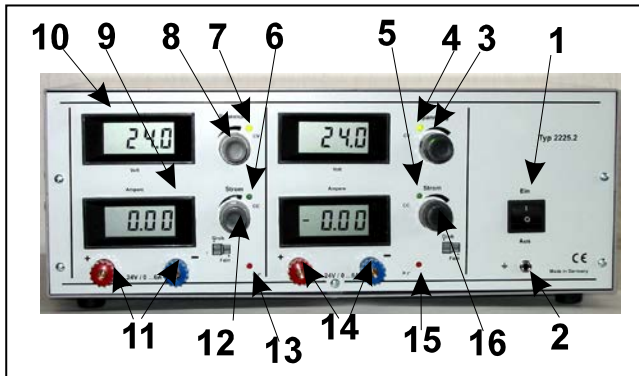
**1. introduction**

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 notes

- 2,1 the power supply unit is in safety class system I as well as in accordance with VDE 0411 and VDE 0805 (EN60950) structured. The supply transformer is structured and with 3,75 kVeff is primarysecondarily checked according to DIN VDE 0551 as safety insulating transformer. It is radio-screened in accordance with VDE 0875T11 curve B. Es is equipped with a VDE checked main with protective grounding and may therefore only to 230-V-Wechselspannungsnetzen with protective grounding be operated or attached.
- 2,2 it is to be made certain that protective grounding (yellow/green) is interrupted neither in the main nor in the device or in the network, since with interrupted protective grounding mortal danger exists. It is to be made certain further that the isolation is damaged nor destroyed neither.
- 2,3 power supply units do not belong into child hands!
- 2,4 in commercial mechanisms is to be considered the rules for the prevention of accidents of the federation of the commercial Berufgenossen schaften for electrical system and resources.
- 2,5 in schools, training facilities, hobby and self-help workshops. is by hand possible for
- 2,6 when opening covers or removing from sections, except if this, can live sections be opened. Also interface can be live. Before an alignment, maintenance, a repair or an exchange of sections the device must be separate from all voltage supplies, if opening of the device is necessary. If thereafter an alignment, maintenance or a repair at the opened device under voltage are inevitable, may take place only by means of a specialist, who is familiar with the associated dangers or the relevant regulations for it.
- 2,7 condensers in the device can be still loaded, even if the device were separated from all voltage supplies.
- 2,8 it is to be guaranteed that only protections of the indicated type and the indicated call stromstraerke are used as back-up. The use of repaired protections or bridging the fuse holder is illegal. The device is overload-proof and short-circuit-protected. When burning the input protection through a serious error is therefore present, which must be eliminated by a specialist, before the new intact protection can be used by this specialist.
- 2,9 switching it your power supply unit never equivalent if it is brought by a cold into a warm space. The condensation developing thereby can destroy your device under unfavorable circumstances. Let the device unein switched to room temperature come. carrying of metallic or conductive decoration is forbidden to
- 2,10 with work with power supply units such as chains, bracelets, rings or the like.
- 2,11 power supply units are not certified for application at humans or animals.
- 2,12 during the series connection of the outputs one or several power supply units is produced lethal voltages (>35 VDC).
- 2,13 louvers of power supply units may not be taken off! The devices are on hard to place with difficulty inflammable documents so that air can occur the devices unhindered. The cooling of the devices takes place predominantly via convection.
- 2,14 power supply units and the attached consumers may not be operated unsupervised. Measures are to be taken to the protection and the protection of the attached consumers in relation to effects of the power supply units (e.g. overvoltages, failure of the power supply unit) and the effects and dangers outgoing from the consumers themselves (e.g. illegally high power input). Note! Sensitive consumers must be protected additionally by external measures against destruction!
- 2,15 in the event of an error can deliver power supply units voltages over 50 V DC voltage, from which dangers proceed, also then if the indicated output voltages of the devices lower is situated.
- 2,16 with work under voltage for it expressly certified tools may be only used.
- 2,17 the outputs of the power supply units (exit hub/clamps) and to it attached lines must be protected against direct contact. In addition the used lines must sufficient isolation or tension strain possess and the contact points be contact-voltage-proof (safety sockets).
- 2,18 shifting metallicly bright lines and contacts is to be avoided. All these places are by suitable to take and to protect thus against direct contact with difficulty inflammable insulants or other measures off. Also the electrically leading sections of the attached consumers are to be protected by appropriate measures against direct contact.
- 2,19 if to assume it is that a safe operation is no longer possible, then is the device out of operation to set and against unintentional operation protect. It is to be assumed that a safe operation is no longer possible, if - the device or the mains cable visible damages indicates, - the device any longer does not operate, - after longer storage under unfavorable conditions, - after heavy transport stresses.

### 3. Controls



- 1-power switch
- 2 mass socket
- 3 rough and fine automatic controller voltage source 2
- 4 LED constant voltage operation source 2
- 5 LED constant current operation source 2
- 6 rough and fine automatic controller current source 1
- 7 LED constant voltage operation source 1
- 8 rough and fine automatic controller voltage source 1
- 9 LCD current display source 1
- 10 LCD - voltage display source 1
- 11 exit hubs source 1
- 12 rough and fine automatic controller current source 1
- 13 LED temperature rise source 1
- 14 exit hubs source 2
- 15 LED temperature rise source 2
- 16 rough and fine automatic controller current source 2

### 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 (6,0A) 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 gleichspannungsquelle against thermal overloading one protects.

Pay attention therefore absolutely to a sufficient ventilation of the power supply unit. Verdecken 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.**

## Technical data

operating voltage:	:	230 V AC +7/-5%	
frequency:	:	50 bis 60 Hz	
power input:	:	max. 2 A	
		<b>source 1</b>	<b>source 2</b>
output voltage:	:	0,005 .... 24 V	0,005 .... 24 V
output current:	:	0,003 ....6,0 A (20V-24V max.5A)	0,003 ....6,0 A (20V-24V max.5A)
voltage stability with +7/ -5% mains fluctuation:	:	< 2 mV	< 2 mV
load compensating with 100% load change:	:	50 mV	50 mV
current stability with +6 / -10 % mains fluctuation:	:	3 mA	3 mA
remaining ripple with nominal load:	:	ca. 1mV <sub>eff</sub> bzw. 3 mA <sub>eff</sub>	ca. 1mV <sub>eff</sub> bzw. 3 mA <sub>eff</sub>
mains fuse:	:	2x 1,6A T	2x 1,6A T
acting voltage display:	:	LCD with 3 digits	LCD with 3 digits
current display:	:	LCD with 3 digits	LCD with 3 digits
weight:	:	ca. 9 kg	
dimensions (B x H x T):	:	360 x 150 x 230 mm	

### site conditions

operating temperature area:	:	+10 °C bis +35 °C
Air humidity:	:	max. 85 %
air pressure:	:	600 bis 1000 hPa

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