stabilized 1300

design **70 x 45 x 60mm**

stabilized output direct voltage **24V DC**

- ✓ **compact design**
- ✓ **high-quality components for long life**
- ✓ **design for operational dependability**
- ✓ **discharging resistor**
- ✓ **sustained short-circuit protection**
- ✓ **low residual ripple**
- ✓ **informative status display by LED**
- ✓ **input fuse**
- ✓ **different voltages and versions**

7 integrated systems of protection!
6 different operational modes

function
The available supply voltage of for example 24V AC is rectified, screened as well as stabilized and adjusted using a voltage regulator.
The output voltage is almost unaffected by input voltage and output load variations.
All units have a sustained short circuit protection and have current limiting dependent on the power dissipation.
Seven integrated systems of protection guarantee an effective protection against overloads.
Up to 5A may be taken from the low loss rectifier during the "pulsating operating mode"; e.g. 2A stabilized and 3A unstabilized.
A remote configuration and remote disconnection of the output voltage, regulator use and adjustable current limits have been integrated.

application
Stabilized power supply units without transformer are recommended for the power supply of sensors, relays, solenoid valves, PLCs etc.

mounting
The power supply units are screwed down, e.g. inside the switch cabinet. When sufficiently cooled (with heat conducting paste, if needed), up to 5A can be drawn, e.g. during the "pulsating operating mode". When mounted on DIN EN 60715 TH35 standard rail (accessory **AN000009** is required) the max. stabilized output current is 0.8A without being cooled.
Connecting terminals for wires up to 2.5mm².
Operating state display by 3 colored LEDs.
yellow LED: input voltage ok
green LED: output voltage ok
red LED: overload current in the load circuit

power supply units

1300 stabilized

TECHNICAL DATA

AC input voltage	Ue	23 ... 30V AC (optimal 23.5 at full load)
nominal input current	Ie	approx. nominal output current +20%
DC output voltage	Ua	24V DC 5 to 30V adjustable
nominal output current	Ia	2A stabilized, short-circuit protection (pulsating operational mode)
residual ripple	(Ua)	< 0.2%
erratic load change response 0/2A		< 140mV/80msec
required cooling		Rth < 0.5 K/W
input fuse		FKS 7.5A to DIN 72581/3C
transformer		see list of articles
max. ambient temperature		60°C
max. inherent heat		45°C
status display (3 LEDs)		yellow: Ue ok / green: Ua ok red: short-circuit load or Ue too high
mounting		screw-on mounting, hole pattern 60mm 35mm standard rail to DIN EN 60715 TH35
design		see list of articles

6 operational modes (terminal assignment: see fig. 1 on front page!)

operational mode 1 (standard)

terminal ~	Ue
terminal ~	Ue
terminal +	+Ua (Ia max. 2A)
terminal -	-Ua

operational mode 2 (pulsating operational mode)

same connection as operational mode 1

terminal G	+Ug; Ig max. 5A (Ig =3A for Ia=2A) (terminal G is internally connected with the positive pole of the rectifier)
terminal -	-Ug

operational mode 3 (use of regulator)

terminal G	+Ug (DC voltage supply) (terminal G is internally connected with the positive pole of the rectifier)
terminal -	-Ug
terminal +	+Ua (Ia max. 2A)
terminal -	-Ua

operational mode 4 (remote potentiometer)

output voltage change 5 ... 30V DC
(adjust AC input voltage!)
connection as operational mode 1 (remote potentiometer 1kΩ, 1W)

terminal +	remote potentiometer start
terminal -	remote potentiometer end
terminal U	remote potentiometer center point

operational mode 5 (remote disconnection)

disconnection of the output current, residual value
< 0.7V when load connected
connection as operational mode 1

terminal I	switch
terminal -	switch

operational mode 6 (current limit)

limiting Ia (R = 450mV / Ia max.)

terminal ~	Ue
terminal ~	Ue
terminal I	+Ua (Ia max. 2A)
terminal -	-Ua
terminal I	R
terminal +	R

design: see list of articles, 60mm hole spacing bores

article-no.	design	description	housing	voltage	output	value	connect.	fig.
NR700201	70x45x60mm	power supply, short-circuit protected	aluminium	24V AC / 24V DC	stabilized	2A	terminals	1
AN000011	80x80x85mm	accessory transformer, +5% / -5%		230V AC / 24V AC		50VA	terminals	w/o
AN000005		accessory fuse DIN 72581/3C				FKS 7.5 A		w/o
AN000009		accessory mounting for standard rail 35 DIN EN 60715 TH35				1way/NR70		w/o

Warning: Never use these devices in applications where the safety of a person depends on their functionality.