

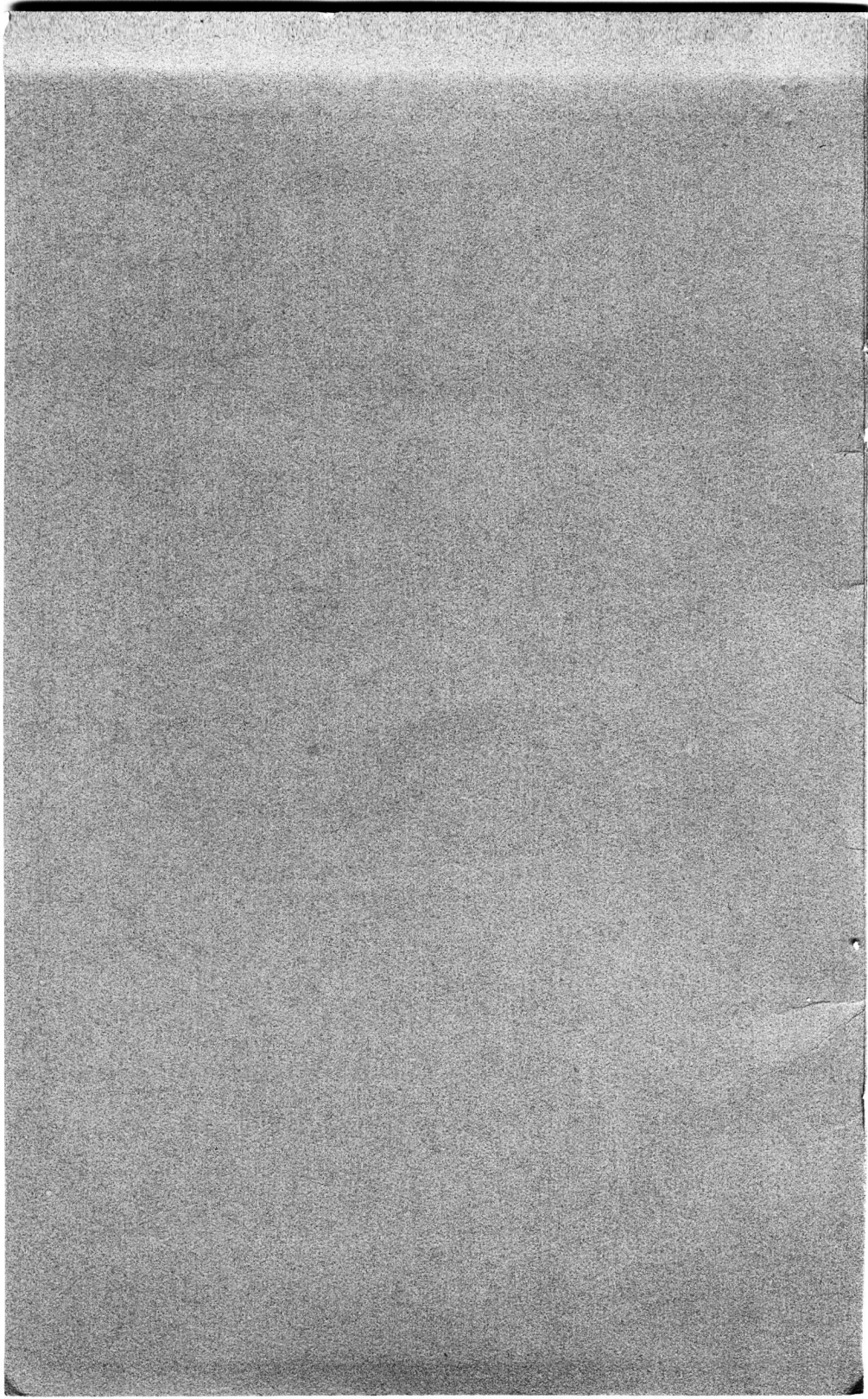
NV DELTA ELEKTRONIKA



E 015-2

E 030-1

E 060-0.6



## REGULATED DC POWER SUPPLIES

**E 015-2**      0-15 V, 0-2 A

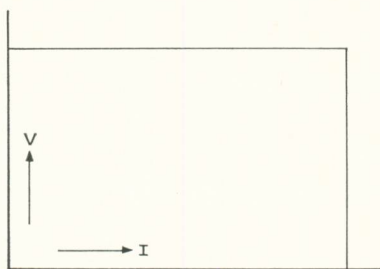
**E 030-1**      0-30 V, 0-1 A

**E 060-0.6**    0-60 V, 0-0.6 A

### DESCRIPTION

The power supplies E 015-2, E 030-1 and E 060-0.6 have voltage and current regulation.

The voltage regulation changes sharply into current regulation if the setted current limit is reached.



These power supplies can be used as a constant voltage source with a limited current or as a constant current source with a limited open voltage.

Both limits are continuously variable.

The constant voltage/constant current design provides complete protection against all overload and short circuit conditions.

## **CONSTANT VOLTAGE OPERATION**

### **Voltage control**

10-turn potentiometer, range 0-100 %.

### **Remote programming**

The voltage can be programmed by an external variable resistor of 0-5000 Ohm. Input on front panel. (10 k $\Omega$  for E 060-0.6).

### **Voltage regulation**

5 mV for a + or - 10 % AC input voltage variation.  
10 mV for a 0-100 % load variation.

### **Temp. coeff.**

$2 \cdot 10^{-4}$  per  $^{\circ}\text{C}$  from maximum output voltage.

### **Ripple voltage**

0.1 mV r.m.s., 0.5 mV p-p.

### **Output impedance**

Maximum 0.1 Ohm up to 100 kHz.

### **Recovery time**

15 micro seconds for recovery to within 30 mV after a step load change from 10 % to 100 %.

## **CONSTANT CURRENT OPERATION**

### **Current control**

Single turn potentiometer, range 0-100 %.

**Current regulation**

0.3 mA for a + or - 10 % AC input voltage variation.  
2 mA for a maximum output voltage swing.

**Temp. coeff.**

$5.10^{-4}$  per °C from maximum output current.

**Ripple current**

0.1 mA r.m.s.

**REMAINING SPECIFICATIONS****Input voltage**

220 V, 50 Hz. Other input voltages at special order.

**Parallel and series connection**

Special design enables parallel and series operation without precaution.

**Ambient temp.**

- 20 to + 45 °C (to + 35 °C for E 015-2 if used at 2 A below 10 V).

**Meter**

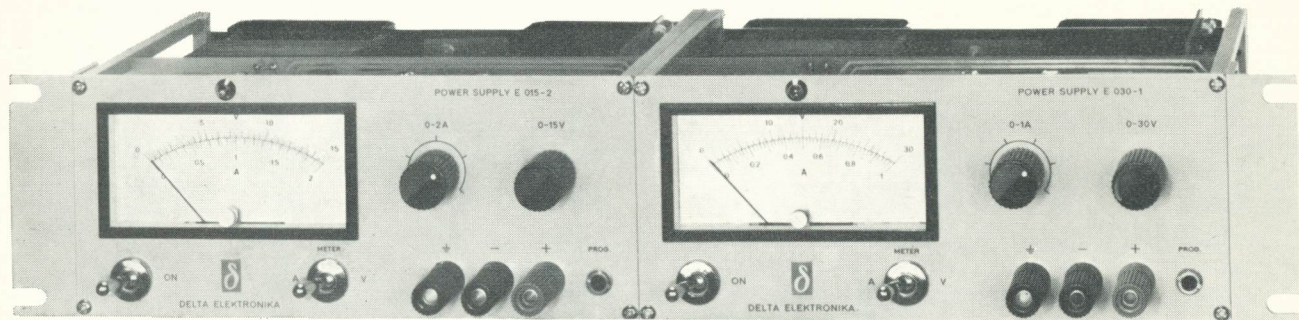
Meter with selector switch for voltage and current, accuracy 1.5 % f.s.

**Finish**

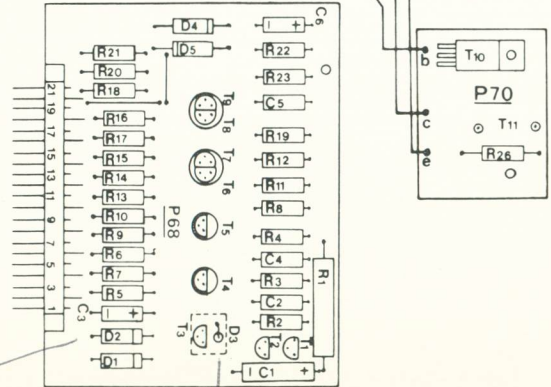
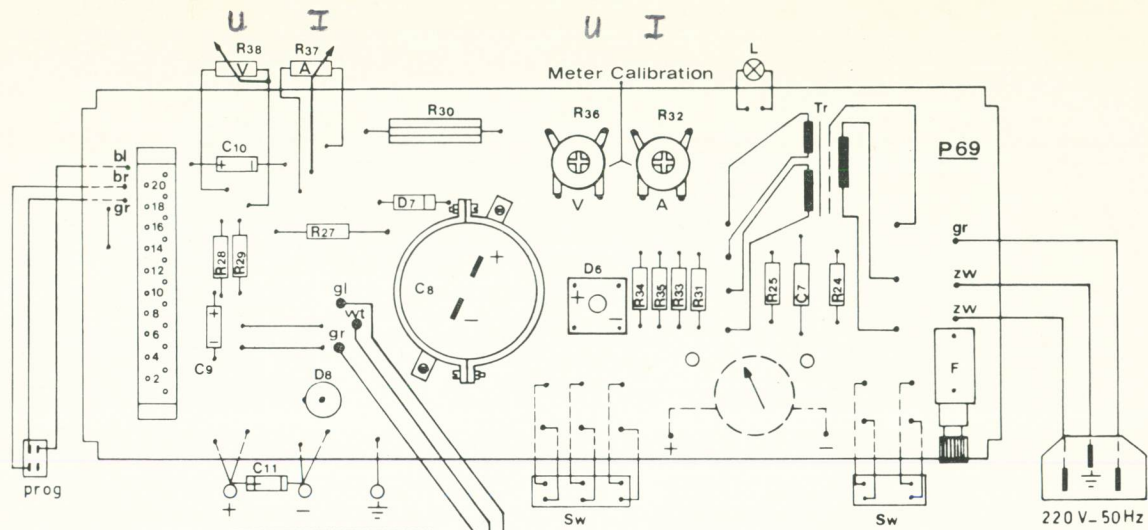
Light grey front panel with dark grey case.

**Weight and size**

2.7 kg     219 x 93 x 154 mm.



Two uncased units can be mounted side by side and with the addition of two H 6 brackets can be inserted in a 19" rack.



Wiring diagram and printed circuit boards  
 E 015-2  
 E 030-1  
 E 060-0.6

ZD 6,2

ZPG,2

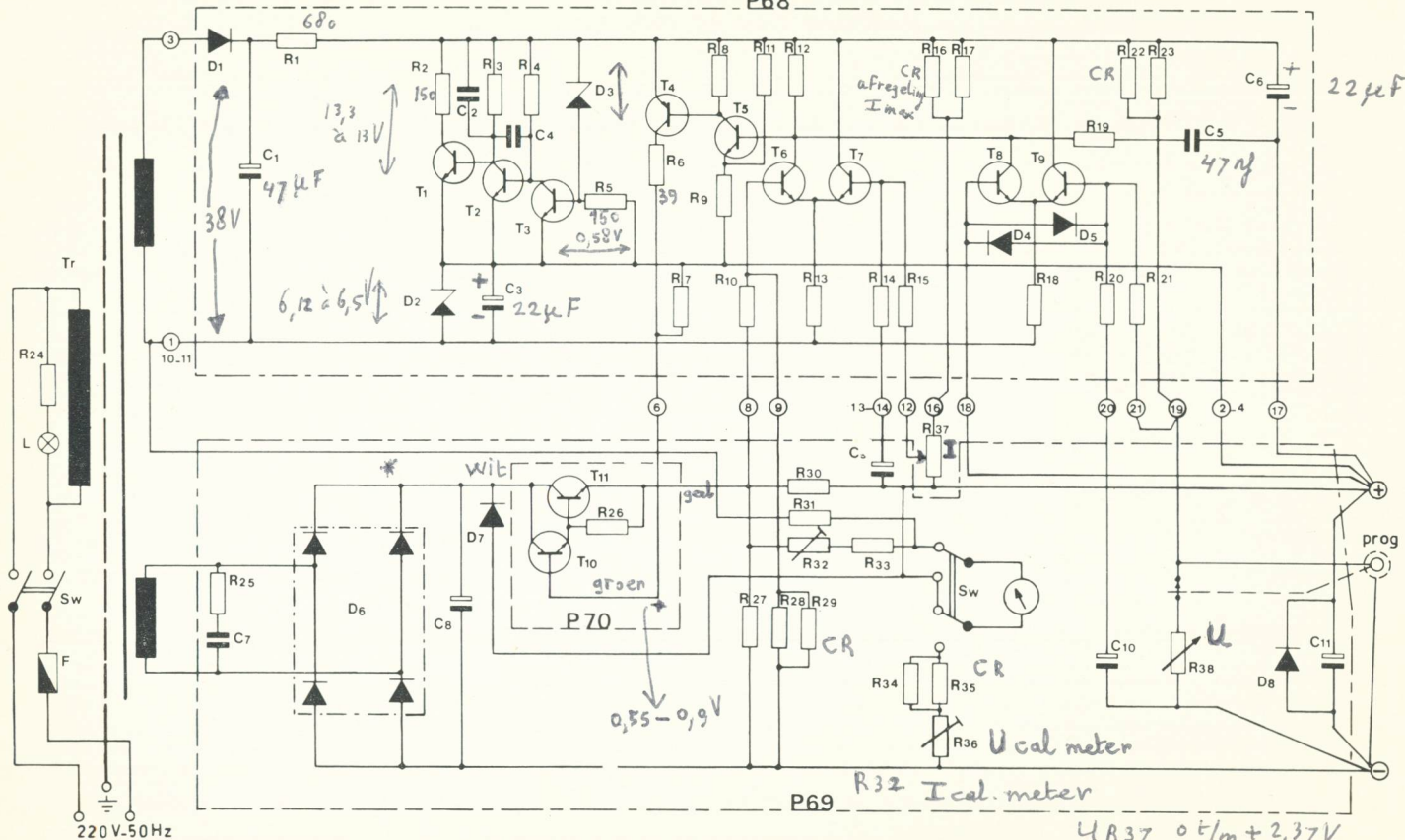
zakt enige volts  
bij max. belasting

6,1 à 6,33V

UR6 28 mV - (0V output - geen belasting)  
54 mV - 15V output - geen belasting

UR7 0,57V  
0,92V

P68



E 015-2, E 030-1 and E 060-0.6

\* 60V versie: 87V open spanning

UR37 0.5V/m + 2.37V

UR38 0.5V/m 31.5V



# PART LIST

E 015-2

E 030-1

E 060-0.6

R (Ohm)

1 = 820	<i>ook wel 1000Ω</i>	680	680	1W
2 = 150		150	150	
3 = 10 k		10 k	10 k	
4 = 10 k		10 k	10 k	
5 = 150		150	150	MF
6 = 33	<i>39Ω op print</i>	33	33	
7 = 1 k	<i>820Ω op print</i>	1 k	1 k	
8 = 2,2 k		2,2 k	2,2 k	
9 = 2,2 k		2,2 k	2,2 k	MF
10 = 470		470	470	
11 = 2,7 k		2,7 k	2,7 k	MF
12 = 22 k		22 k	22 k	
13 = 6,8 k		6,8 k	6,8 k	
14 = 470		470	470	
15 = 470		470	470	
16 = CR		CR	CR	MF
17 = 12 k		12 k	12 k	MF
18 = 6,8 k		6,8 k	6,8 k	
19 = 150		150	150	
20 = 470		470	470	
21 = 470		470	470	
22 = CR		CR	CR	MF
23 = 2,2 k		1,2 k	1,2 k	MF
24 = 560 k		560 k	560 k	
25 = 82		82	82	
26 = 10		10	10	
27 = 560		1,5 k	5,6 k	1W
28 = 2,7 M		1,2 M	820 k	
29 = CR		CR	CR	
30 = 1		1,8	3,3	7W WW
31 = 1,2 M		680 k	330 k	
32 = 1 k		1 k	1 k	var.
33 = 1,5 k		1,5 k	1,5 k	MF
34 = 15 k		33 k	68 k	MF
35 = CR		CR	CR	MF
36 = 1 k		1 k	1 k	var.
37 = 5 k		5 k	5 k	var. WW
38 = 5 k		5 k	10 k	10 t. potm.

E 015-2

E 030-1

E 060-0.6

## C (microfarad)

1 =	50	70 V	50	70 V	50	70 V
2 =	0,01	250 V	0,01	250 V	0,01	250 V
3 =	25	15 V	25	15 V	25	15 V
4 =	0,01	250 V	0,01	250 V	0,01	250 V
5 =	0,047	250 V	0,047	250 V	0,047	250 V
6 =	25	15 V	25	15 V	25	15 V
7 =	0,22	250 V	0,22	250 V	0,22	250 V
8 =	5000	35 V	2500	70 V	1000	100 V
9 =	10	35 V	10	35 V	10	35 V
10 =	10	100 V	10	100 V	10	100 V
11 =	50	35 V	50	70 V	50	100 V

## D

1 =	TS 2	TS 2	TS 2	Diode Inc.
2 =	ZD 6,2	ZD 6,2	ZD 6,2	ITT
3 =	ZP 6,2	ZP 6,2	ZP 6,2	ITT
4 =	IN4148	IN4148	IN4148	ITT
5 =	IN4148	IN4148	IN4148	ITT
6 =	VH 148	VH 148	VH 148	VARO
7 =	TS 2	TS 2	TS 2	Diode Inc.
8 =	MR 1031 B	MR 1031 B	MR 1031 B	Motorola

## T

1 =	BC 182	BC 182	BC 182	Texas I.
2 =	BC 182	BC 182	BC 182	Texas I.
3 =	BC 182	BC 182	BC 182	Texas I.
4 =	BC 212	BC 212	BC 212	Texas I.
5 =	BC 182	BC 182	BC 182	Texas I.
6 =	BC 182	BC 182	BC 182	Texas I.
7 =	BC 182	BC 182	BC 182	Texas I.
8 =	BC 182	BC 182	BC 182	Texas I.
9 =	BC 182	BC 182	BC 182	Texas I.
10 =	TIP 29 A (Texas I.)	TIP 29 A (Texas I.)	MJE 340	Motorola
11 =	2N3055	2N3055	2N3442	RCA

F = Fuse 1 A - 5 x 20 mm

WW = Wire wound resistor

MF = Metalfilm resistor

CR = Calibration resistor

All other resistors carbon

 $\frac{1}{2}$  W 5%

6,2 V  
6,2 V

41 mA  
5 mA

1 Watt  
400 m Watt

ook web BC 174A

