30 S5

DELTA ELEKTRONIKA BV

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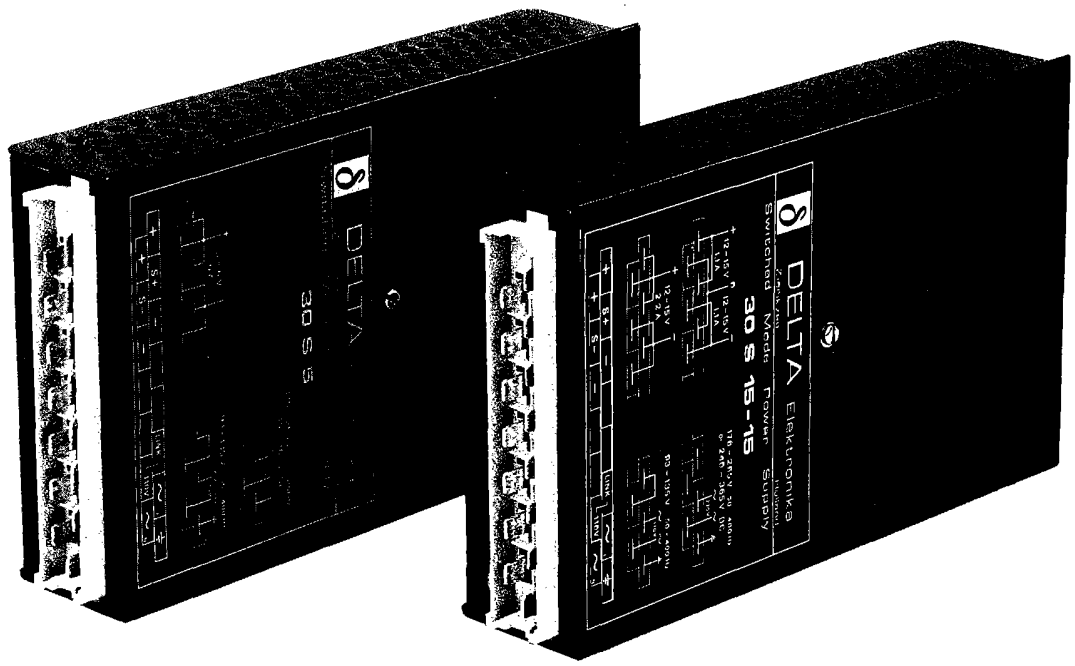


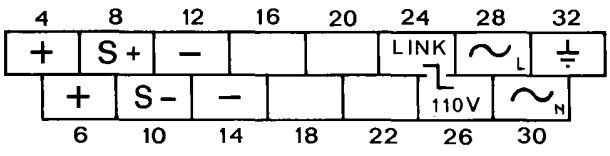
30W SWITCHED MODE POWER SUPPLIES

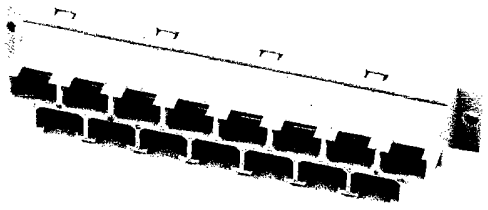
30S5	**5 - 6 V**	**6 A**
30S15-15	**2 x 12 - 15 V**	**1.1 A**

The two outputs of the 30S15-15 can be connected as follows:

Single output	12 to 15 V	2.2 A	
Single output	24 to 30 V	1.1 A	
Dual output	$\pm$12 to $\pm$15 V	1.1 A	(Max. 1.5 A asymmetrically)
Two outputs	12 to 15 V	1.1 A	(Max. 1.5 A asymmetrically)

These power supplies have a very wide input voltage range which allows them to be used on 110 - 115 - 125 - 220 - 230 - 240 V, 50-400 Hz line voltages.





Connector: 15-pole H15 according to Din 41612. Connections can be made directly on to the power supply with Faston receptacles 4.8 x 0.8 mm or on to the H15 mating connector which is available with faston tabs 6.3 x 0.8 mm or with screw terminals.

Input voltage:

176 - 265 V AC 50-400 Hz
or 240 - 365 V DC

With external link
93 - 135 V AC 50-400 Hz

Voltage regulation:

10 mV for 0-100 % load variation
15 mV for 176-265 V line variation

This applies when the 30S15-15 is connected as a single output power supply. If used as a dual or as a master and slave see curves on next page.

Ripple + noise:

5V 6A	20 mV p-p
15V 2,2A	30 mV p-p
30V 1,1A	60 mV p-p

Transient response:

Load change 10 to 100 %
Max. deviation 250 mV
Recovery time 0.5 mS

Temp. coeff. of output voltage:

0.02 % per °C

Efficiency:

Typical 30S5 75% 30S15-15 80%
at full load and 220 V AC input.
Input current at no load is only 30 mA.

Overvoltage protection:

Internal SCR crowbar set to operate at approximately 7 volts on 30 S 5 and 18 V on 30 S 15-15 (36 V in series mode).

Hold-up time:

40 mS at full load and 220 V AC input.

Temperature range:

- 10 to + 50 °C at 100 % output current
Linear current derating to 20 % at 75 °C.

Remote sensing:

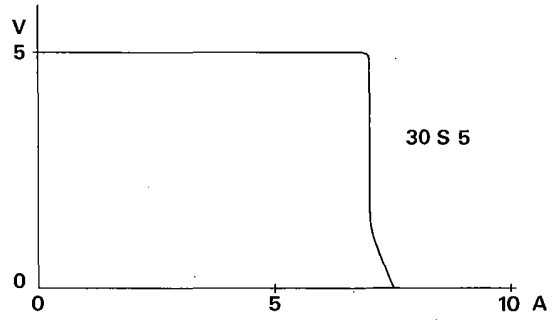
Fitted on both models.

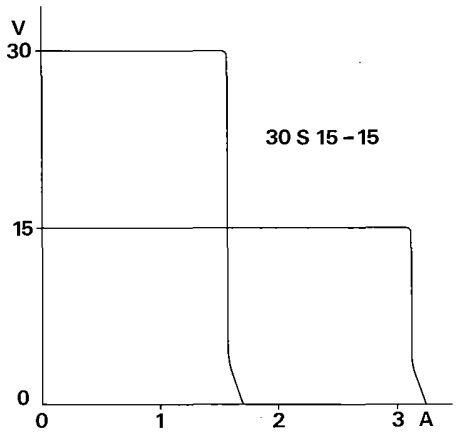
Led lamp:

Led lamp on front end indicates output state.

Overload protection:

Constant current limit





Series Operation:

Up to 250V combined output.

Parallel Operation:

Units may be connected in parallel. To protect the internal overvoltage protector a separate crowbar protector, set to 110 % of the output voltage, connected across the load, is recommended.

RFI suppression:

Conducted interference complies with VDE 0875 curve N-12dB on input and curve N on output.

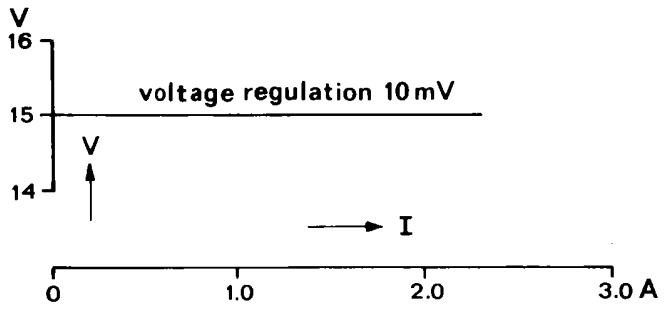
Insulation:

Input to earth (case)	: 2,5 kV RMS for 1 minute
Input to output	: 2,5 kV RMS for 1 minute
Output to earth (case)	: 500 V DC
Insulation resistance (500 V)	: 50 M Ohm

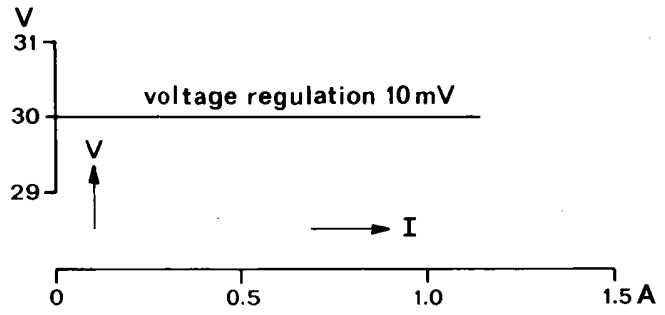
Weight:

Approximately 0,6 Kgs.

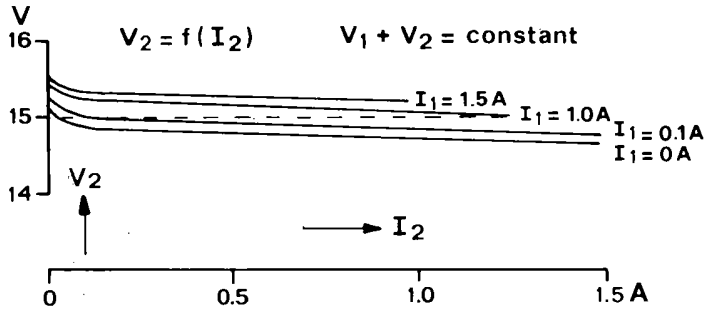
30S15-15 can be used in 4 different modes



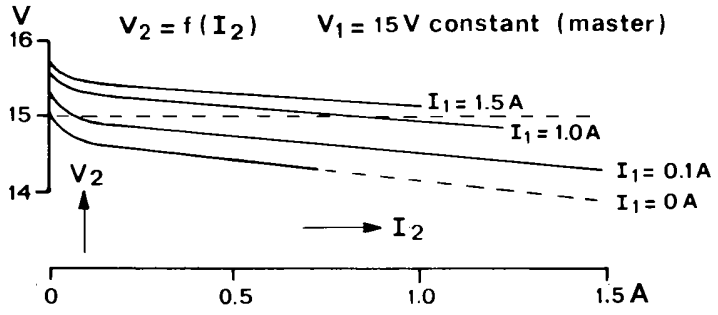
Single output 12 to 15 V 2.2 A



Single output 24-30 V 1.1 A

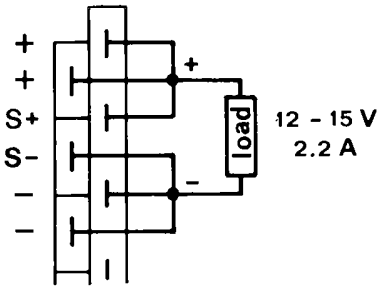


Dual output + and - 12 to 15 V 1.1 A



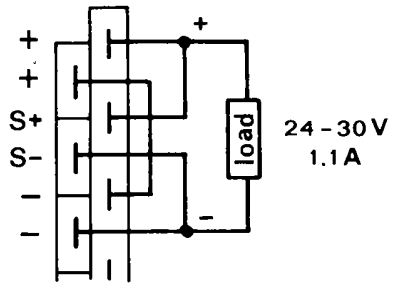
Two isolated outputs, each 12-15 V 1.1 A

Note: Curves apply for serial nrs after D 90000



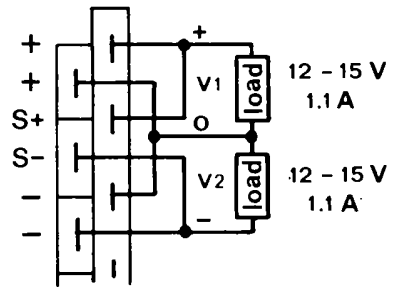
Parallel mode

Turn down the voltage adjustment about 15 turns if previously used in series mode, otherwise the over voltage protector will trip.

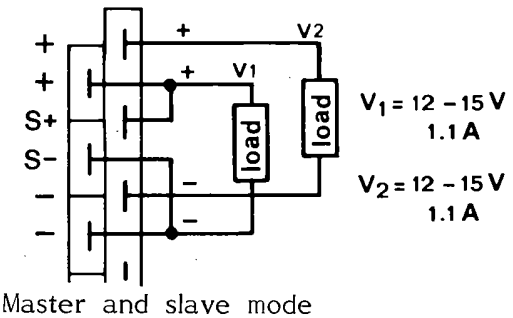


Series mode

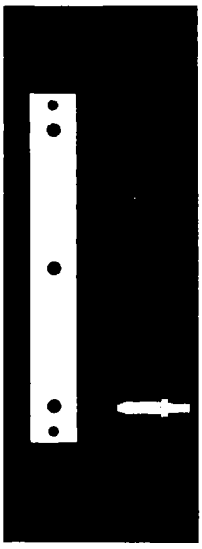
Turn up the voltage adjustment about 15 turns if previously used in parallel mode.



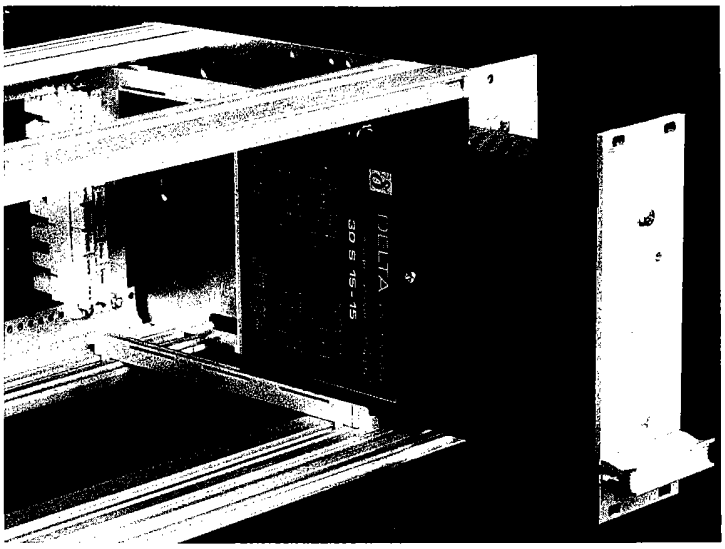
Dual mode



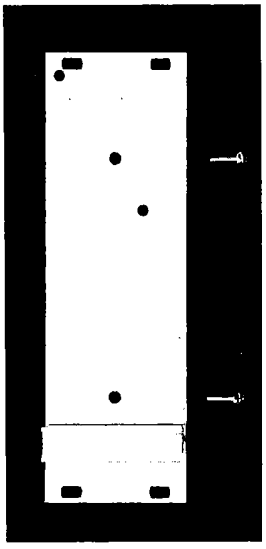
Master and slave mode



Polarizing system



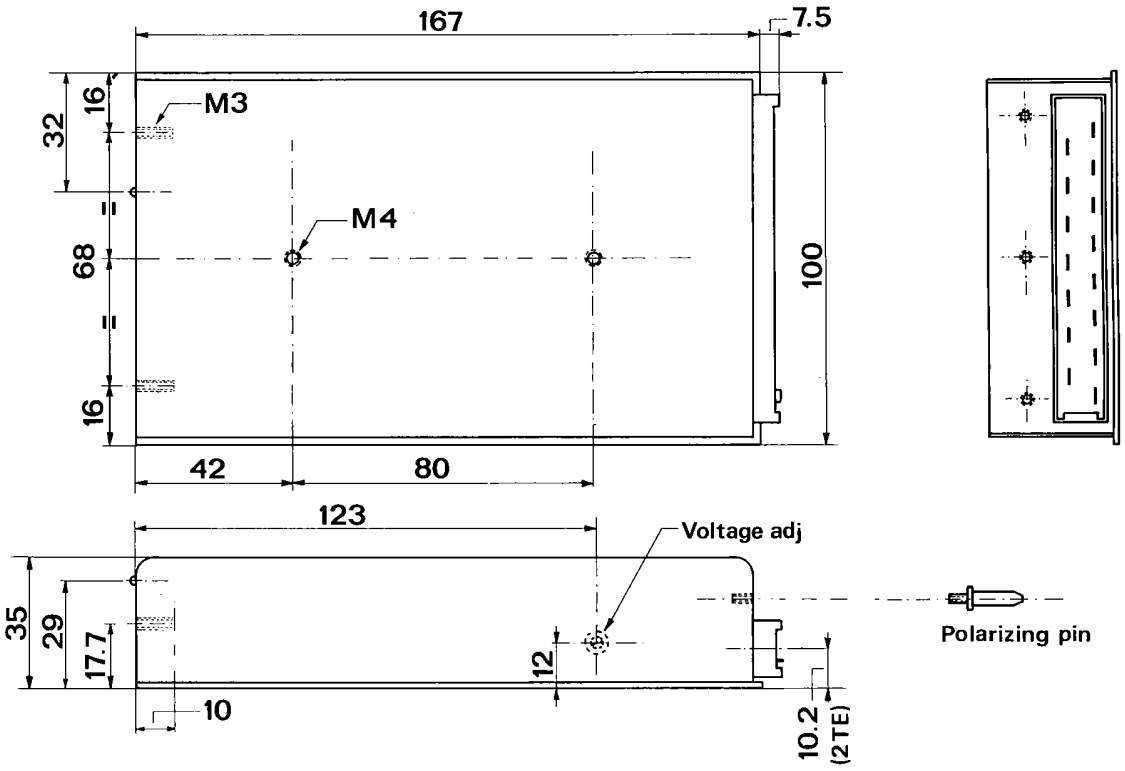
Dimensions of the 30S series are according to DIN 41494 to fit into a Eurocard Rack Connector is H15 acc. to DIN 41612



Elräck front panel 8 TE

A polarizing system, using a pin + plate arrangement, is available to prevent incorrect insertion of dissimilar units into the rack. Three positions of the pin are possible. The other two holes have to be covered by a screw.

The front panel and polarizing system have to be ordered separately. A mating H15 connector is supplied with each unit.



R = Ohm

1	=	270 k	
2	=	150 k	
3	=	3,9 k	
4	=	4,7 k	
5	=	4,7 k	
6	=	120	0,5W 5%
7	=	3,9 k	
8	=	1 k	
9	=	3 k	
10	=	1 k	
11	=	link	
12	=	100	
13	=	180	
14	=	1 k	
15	=	330	
16	=	22	
17	=	100	
18	=	100	
19	=	1	2W 10% WW
20	=	1 k	
21	=	82	
22	=	15	
23	=	82	
24	=	470	
25	=	33	
26	=	33	
27	=	82	
28	=	200	potm.
29	=	100	potm.
30	=	390	
31	=	12 k	25° C

(2322-640-90004 Philips)

all other resistors 0,33W 2%
WW = wire wound.

D

1	=	1N914	Philips
2	=	1N4001	Philips
3	=	MR 817	Motorola
4	=	MR 810	Motorola
5	=	MR 817	Motorola
6	=	MR 810	Motorola
7	=	MR 810	Motorola
8	=	MBR 1530	Motorola
9	=	MBR 1530	Motorola
10	=	MR 810	Motorola
11	=	BY 179	Philips
12	=	BZY 88-C 24	Philips
13	=	C 103 YY	GE
14	=	BZX 61-C 30	Philips
15	=	2N4441	Motorola
16	=	BZY 88-C 18	Philips
17	=	TIL 209	TI

C = microfarad

1	=	0,0022	2 kV
2	=	100	250 V
3	=	100	250 V
4	=	47	25 V
5	=	0,01	400 V
6	=	47	6 V tt
7	=	47	25 V
8	=	2,2	16 V tt
9	=	0,00047	100 V
10	=	0,0022	40 V
11	=	0,0001	100 V
12	=	33	25 V
13	=	1000	10 V
14	=	0,00047	100 V
15	=	22	6 V tt
16	=	1000	10 V
17	=	0,047	630 V
18	=	0,047	630 V
19	=	0,33	63 V

tt = tantalum

T

1	=	BC 182 A	TI
2	=	BC 212 A	TI
3	=	BUX 84	Philips
4	=	BFY 50	TI

IC

1	=	FCD 820 C	Fairchild

SM

1	=	delta
2	=	delta
3	=	delta
4	=	delta

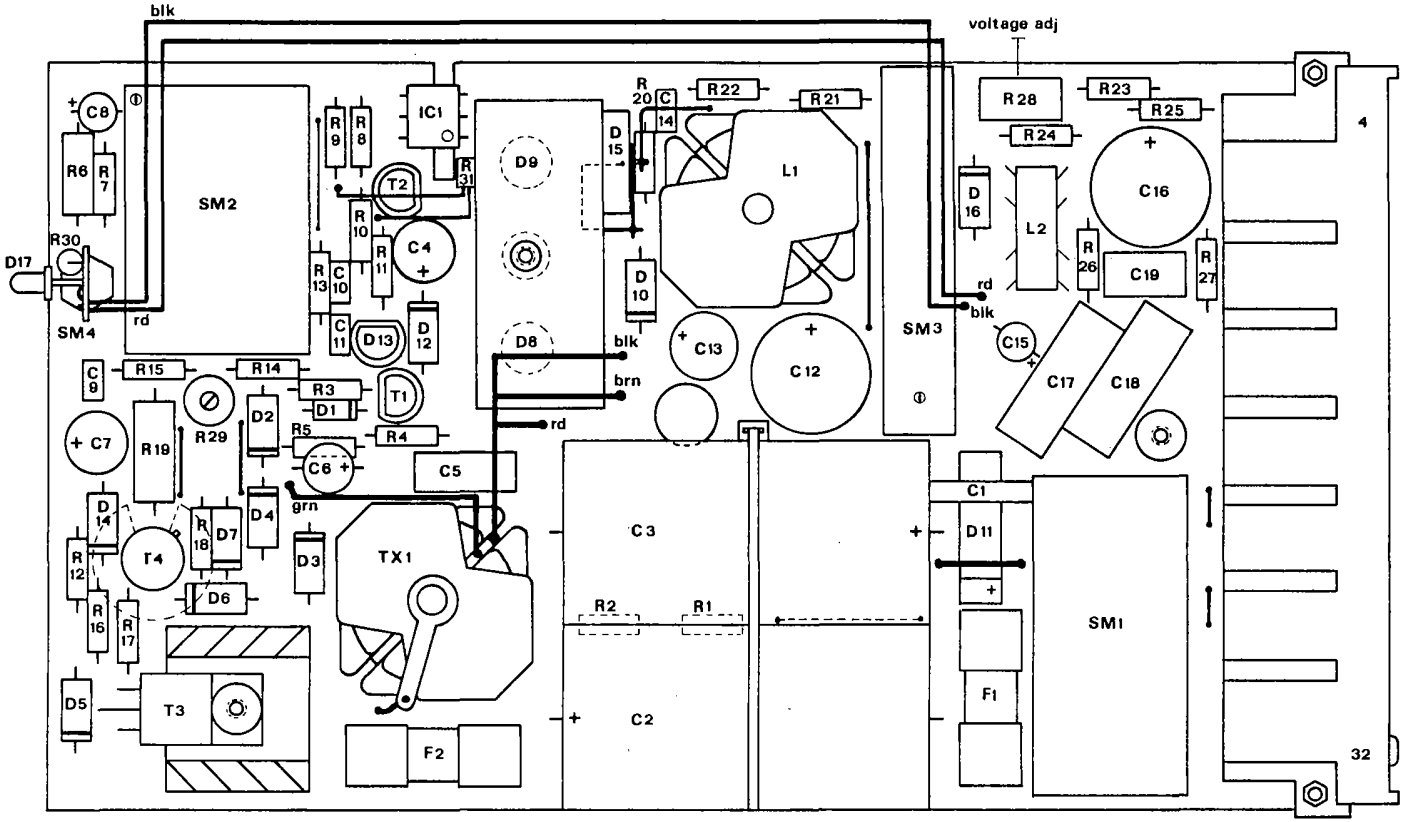
L

1	=	delta
2	=	delta

TX 1 = delta

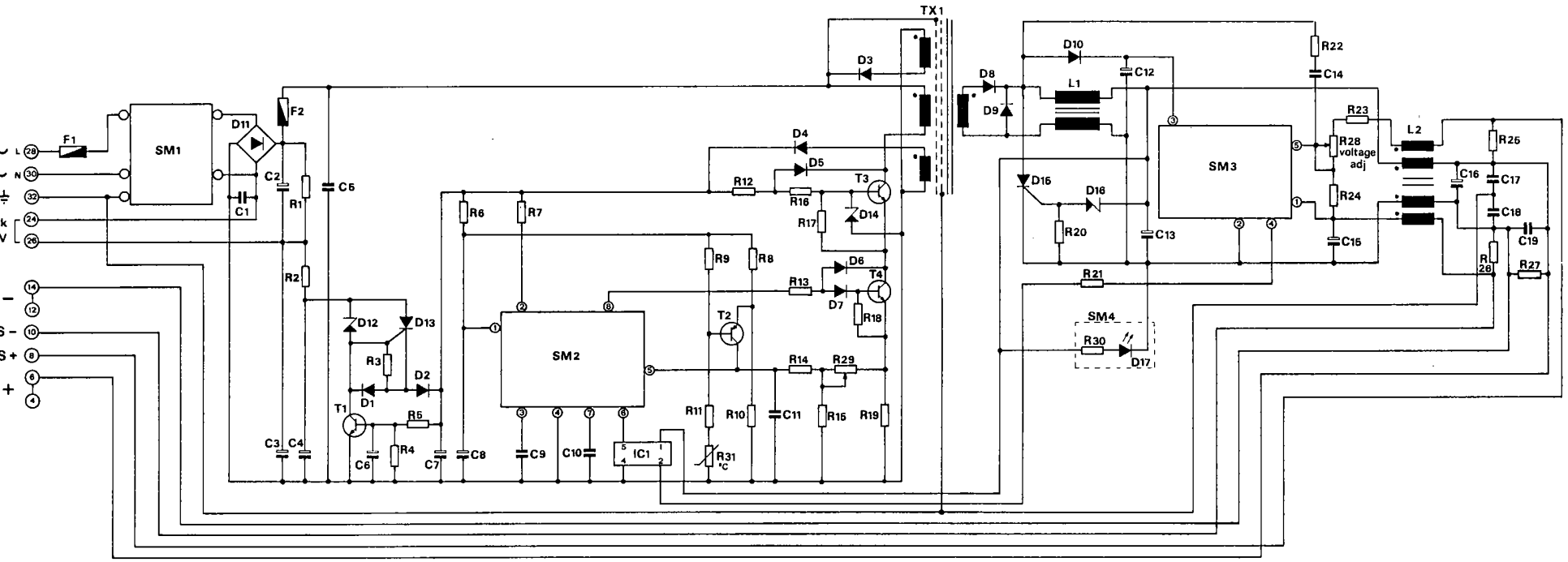
F1 = fuse 600 mA 20 mm anti-surge
F2 = fuse 250 mA 20 mm quick-blow

				Title: part list 30S5



blk = black
brn = brown
grn = green
rd = red

			Title: PC board 30S5
			Date: 6-'80
Modifications	Date	App	delta elektronika bv



			Title: circuit diagram 30 S 5
			Date: 6 –'80
Modifications	Date	App	delta elektronika bv