

**POWER SUPPLIERS**

- PS2/117
- PS2/118
- PS2/119A,B
- PS2/120A,B,C
- PS2/121A-V
- PS2/122
- PS2/123

The characteristics of the suppliers are summarised in the tables below.

**TABLE 1**  
Input mains voltage 220 V to 260 V 50 Hz

	PS2/117	PS2/118	PS2/119A,B	PS2/120A-C
Output V	12	5.25	A 5.25, B 6	A 12, B 18, C 24
Max Output I amp.	1.3	2.0	0.75	0.5 0.33 0.25
Max ripple at full load mV p-p	2.0	2.0	2.0	2.0
Max noise mV p-p	1.0	1.0	2.0	1.0
Max output imped.				
d.c.	0.05	0.05	0.05	0.05
10 kHz	0.07	0.07	0.07	0.07
100 kHz	0.15	0.15	0.15	0.15
1 MHz	1.0	1.0	1.0	1.0
3 MHz	3.0	3.0	3.0	3.0
Thermal stab. mV/°C	1.0	1.0	1.0	1.0
Regulation (7.5% mains variation)	1.0%	1.0%	1.0%	1.0%
Mounting	CH1/12A	CH1/12A	Printed card half CH1/12A size	

PS2/121 A-V includes one or two PS2/119 A or B, or PS2/120 A, B or C. For output voltages see Fig. 5.  
 PS2/122 includes one PS2/120A and a 30-volt unit having the same general form as the PS2/120C but with a maximum current rating of 200 mA and a maximum output impedance at d.c. of 0.1 ohm.  
 PS2/123 includes two PS2/118, one PS2/121C and one PS2/121K mounted in a PN3/23 panel with a PN3A/16D connecting panel.

**TABLE 2**

Input mains volts	Max. Output Current % of full load			
	PS2/117 PS2/118	PS2/119A,B	PS2/120A	PS2/120B, C
200 V 50 Hz	60	70	60	80
190 V 50 Hz	30	40	35	60

**Overload and Over voltage Characteristics**

Short Circuit Current 25% of full load

Current Limiting starts 110% of full load

Over Voltage Protection  
(all units except PS2/120B,C) Starts at 120% of nominal output volts

Resetting after over voltage condition  
PS2/117, PS2/118 No reset, fuse fails  
PS2/119A,B and PS2/120A Disconnect from mains supply for several seconds.

**Index Peg Numbers**

PS2/117	60 and 66
PS2/118	29 and 31
PS2/121	See Fig. 5
PS2/122	48 and 75

PS2/119A,B and PS2/120A-C are respectively similar to the PS2/92A,B and PS2/91A-C but heat dissipation has been improved and long-life capacitors used.

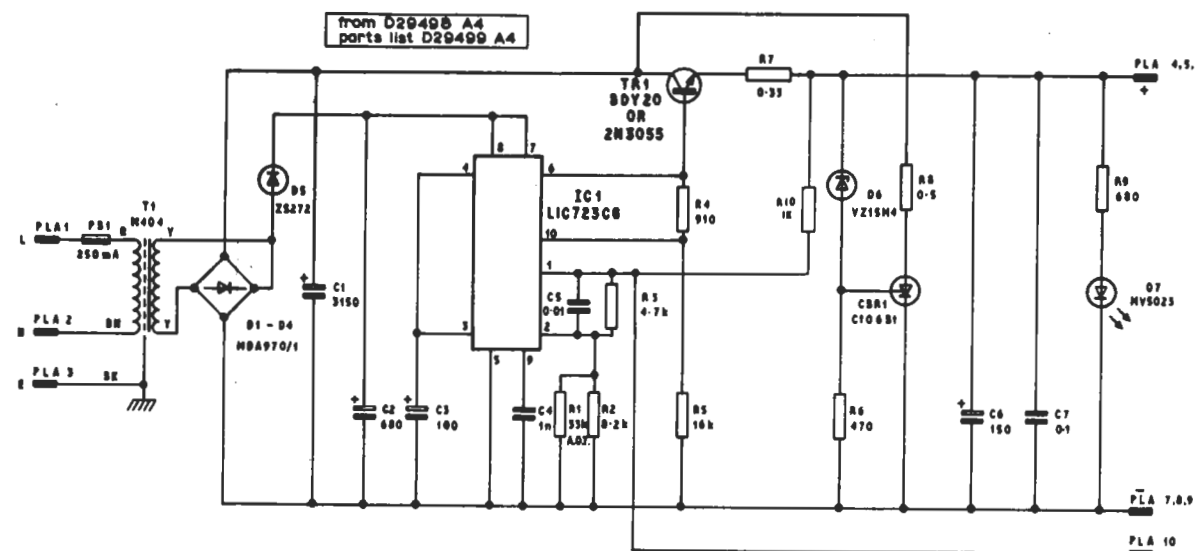
The working ambient temperature range for all suppliers is 0°C to 45°C.

The circuit diagrams are given in Figs. 1 to 6

**References**

1. Designs Department Technical Memorandum No.7.171(71)
2. Designs Department Specifications
  - PS2/117 No.7.202(71)
  - PS2/118 No.7.203(71)
  - PS2/119A,B No.7.204(71)
  - PS2/120A,B,C No.7.205(71)
  - PS2/121A-V No.7.206(71)
  - PS2/122 No.6.182(71)
  - PS2/123 No.2.332(71)

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PS2/117/1

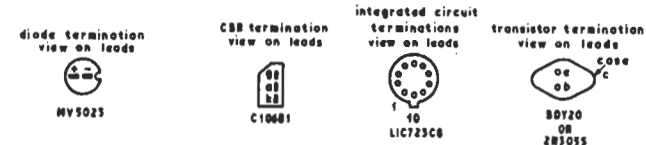
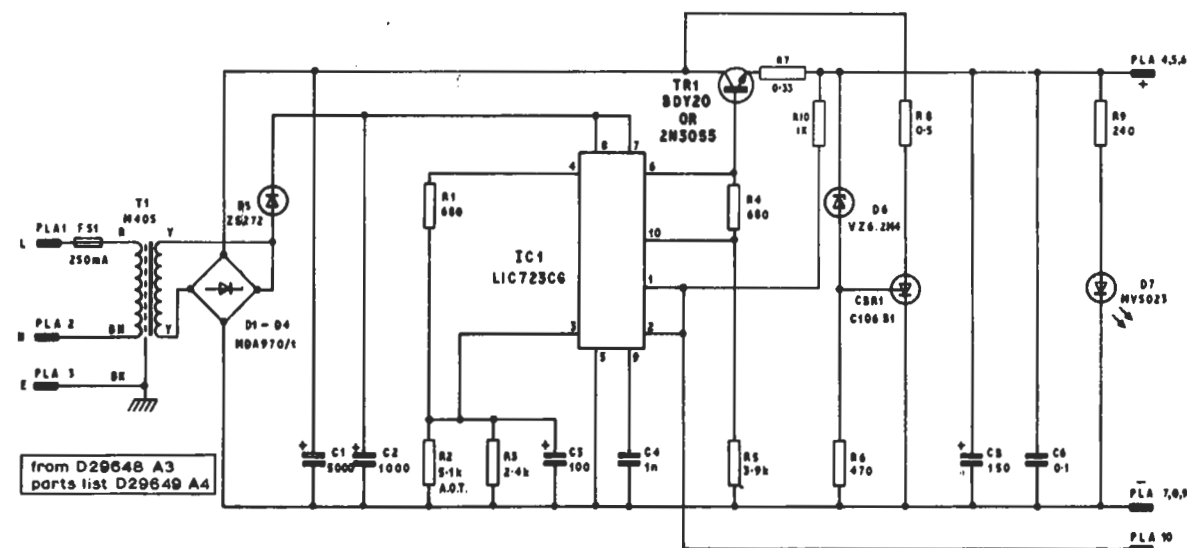


Fig.1 PS2/117: Circuit Diagram



PS2/118/1

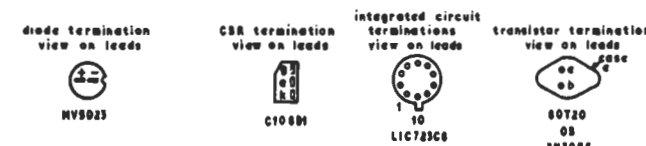


Fig.2 PS2/118: Circuit Diagram

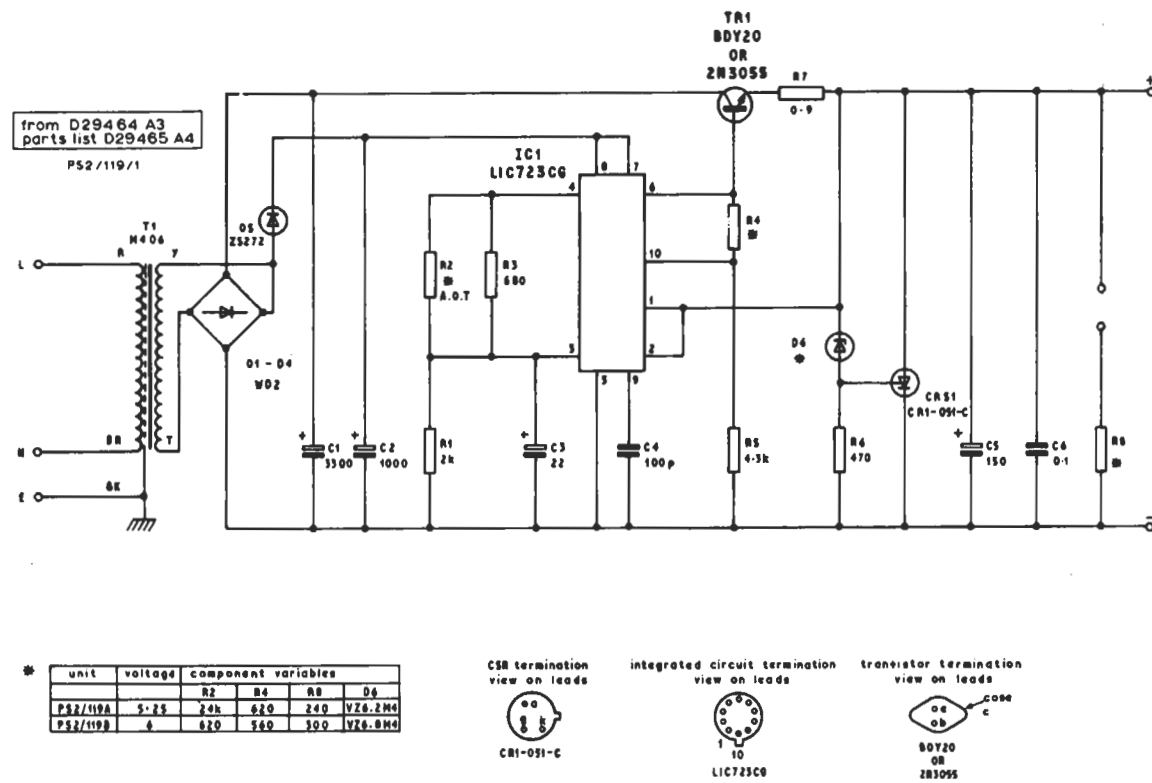


Fig.3 PS2/119: Circuit Diagram

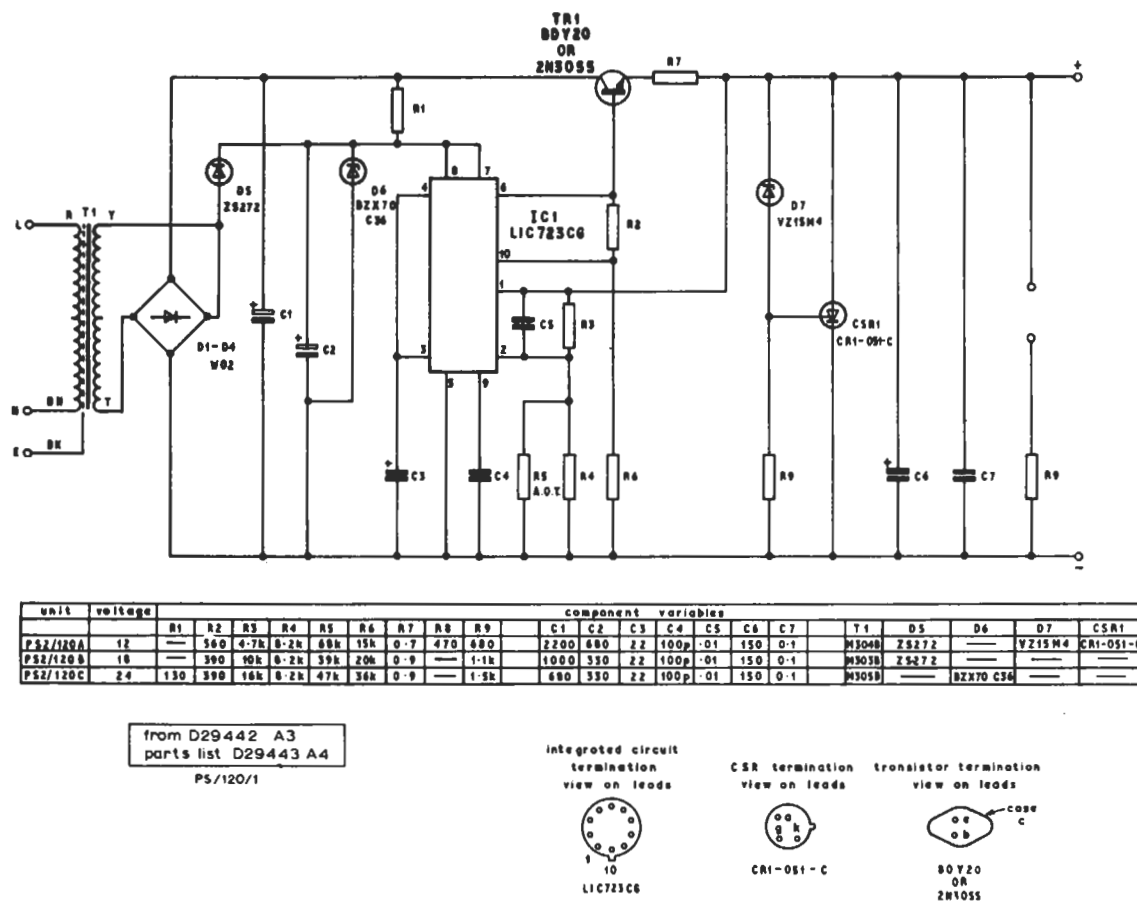


Fig.4 PS2/120: Circuit Diagram

Permutation of PS2/120 A-C & PS2/119 A-B power supplies

PS2/121	index	output voltage	
		rear	front
A	PS2/120A only	31 & 39	12
B	PS2/120B only	31 & 40	18
C	PS2/120C only	32 & 34	24
D	PS2/119A only	32 & 35	5-25
E	PS2/119B only	32 & 36	6
F	PS2/120A PS2/120B	32 & 37	12 18
G	PS2/120A PS2/120C	32 & 36	12 24
H	PS2/120A PS2/119A	32 & 39	12 5-25
J	PS2/120A PS2/119B	32 & 40	12 6
K	PS2/120A PS2/120A	33 & 35	12 12
L	PS2/120B PS2/120C	33 & 36	18 24
M	PS2/120B PS2/119A	33 & 37	18 5-25
N	PS2/120B PS2/119B	33 & 38	18 6
P	PS2/120B PS2/120C	33 & 39	18 18
Q	PS2/120C PS2/119A	33 & 40	24 5-25
R	PS2/120C PS2/119B	34 & 36	24 6
S	PS2/120C PS2/120C	34 & 37	24 24
T	PS2/119A PS2/119B	34 & 38	5-25 6
U	PS2/119A PS2/119A	34 & 39	5-25 5-25
V	PS2/119B PS2/119B	34 & 40	6 6

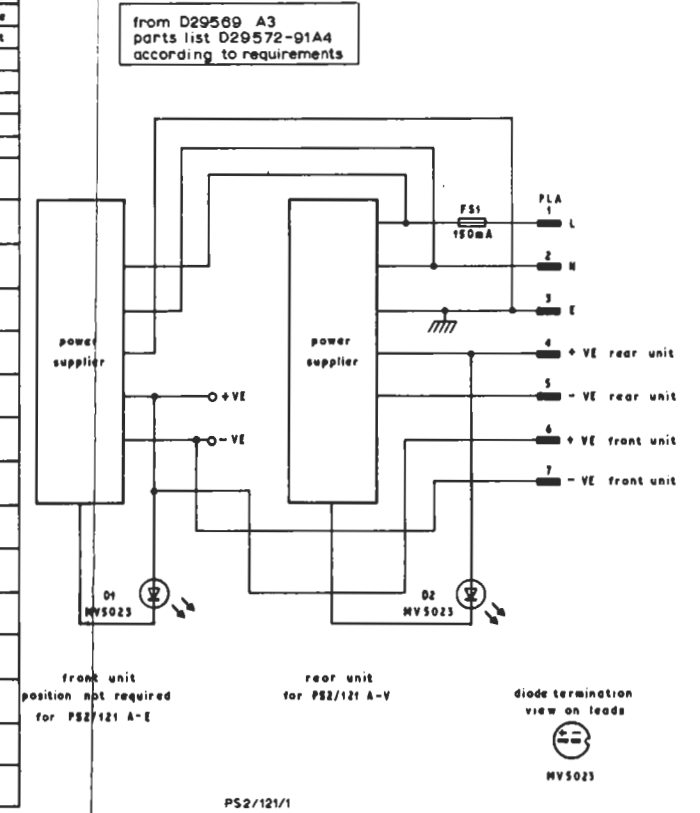


Fig.5 PS2/121: Circuit Diagram

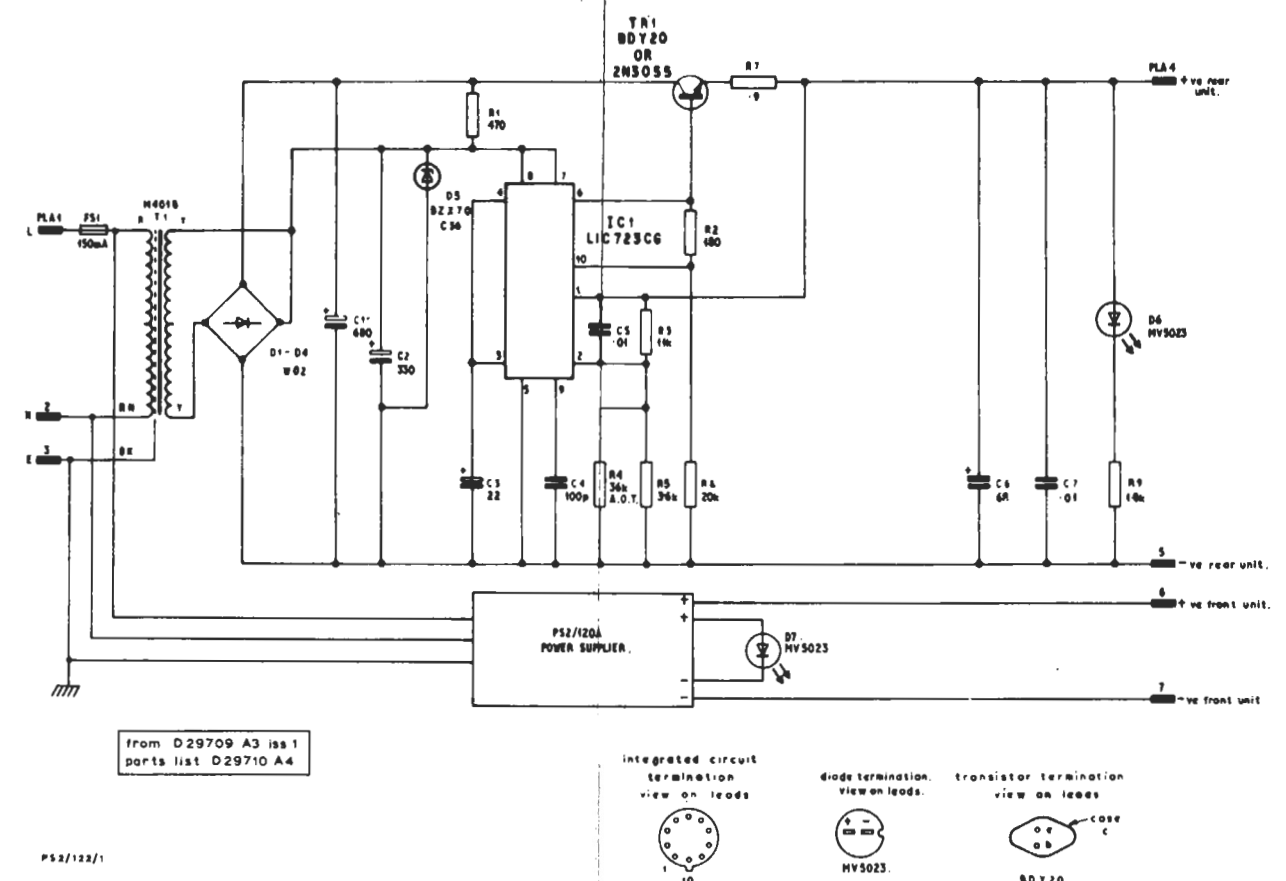


Fig.6 PS2/122: Circuit Diagram