

DELTA ELEKTRONIKA BV



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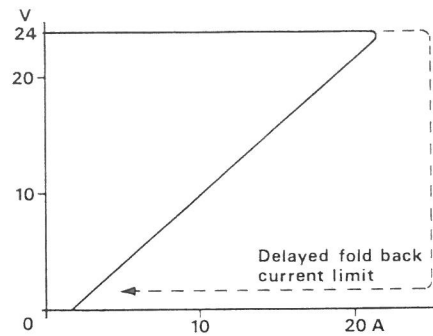
REGULATED POWER SUPPLY

M 24 - 20 24 V 20 A

- Input voltage : 110-117-220-234 V 50-60 Hz. Input current 4.5 A RMS at 220 V and full load.
- Insulation : 2.5 kV RMS for 1 minute between input and output/case
500 V DC between output and case.
Transformer according to VDE 0551.
- Output voltage : 24 V. Adjustment range 23-28 V (see curve for max. current).
- Voltage regulation : 0.02 % for a + 10 % to - 10 % line variation.
0.02 % for a 0-100 % load change.
- Temperature coeff. : 0.01 % per °C
- Drift : Less than 0.1 % per 8 hours under constant ambient and load conditions after 30 minutes warm-up.
- Ripple : 0.1 mV RMS. 0.5 mV p-p.
- Output impedance : Less than 100 milli-ohm at 100 kHz load frequency.
- Recovery time : 20 microseconds for recovery within 30 mV of steady state voltage after a step load change from 10 % to 100 %.
- Ambient temperature : Maximum 50 °C at full load with linear current derating to 20 % at 85 °C.

Current limit:

The M 24-20 has a fold back current limit characteristic. In spite of this the power supply can be used with non-linear loads such as incandescent lamps, provided the current rating of the lamp does not exceed 16 A. Series connected units can also be switched on into a lamp load.



Remote sensing: Is provided

Parallel and series connection:

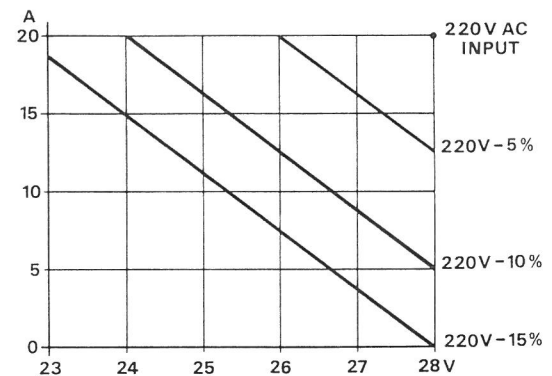
Parallel and series connection is permitted. In case of parallel connection the current limit potentiometer (normally adjusted at about 22 A) must be turned down to 20 A or less for better current sharing.

Static screens:

The input transformer has two screens. The first is connected to the case, the second to the output.

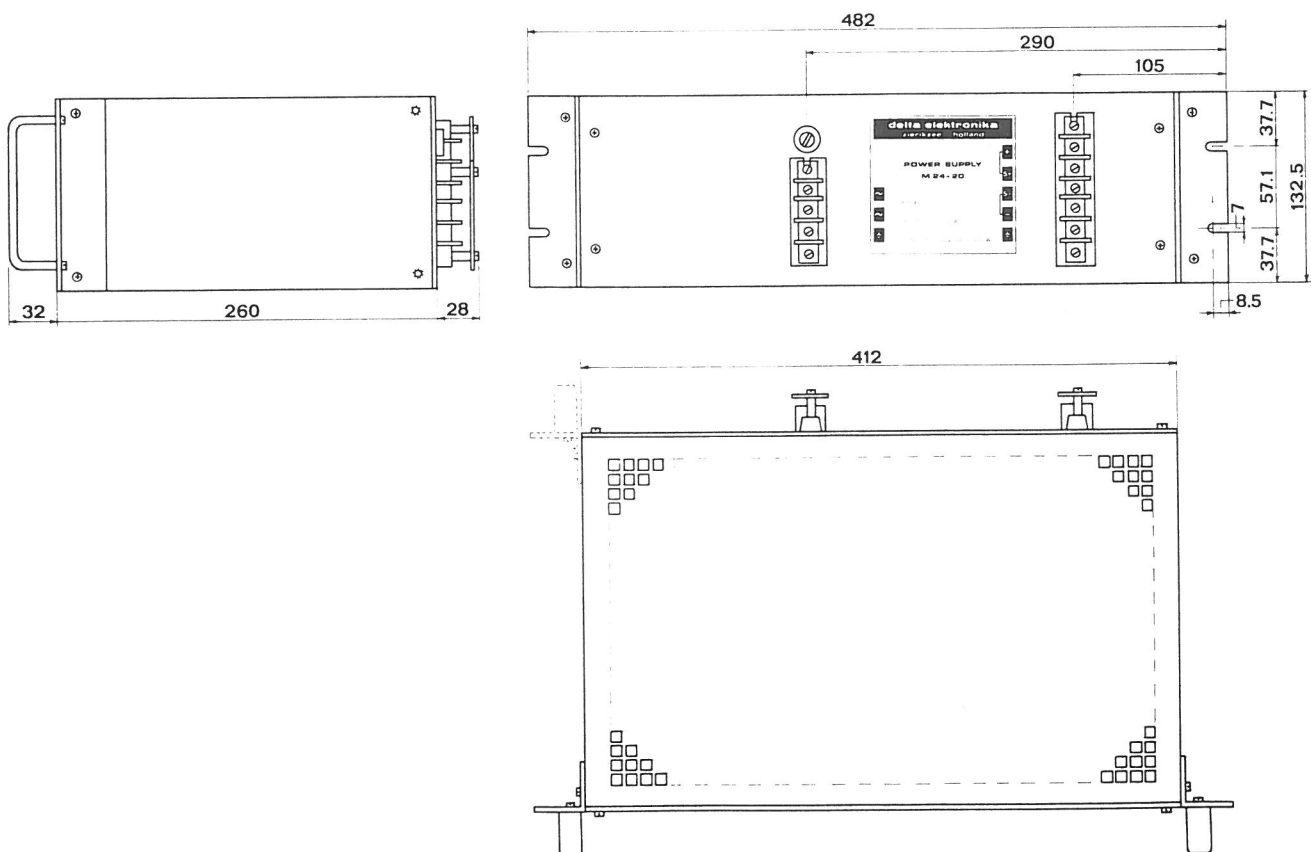
Maximum output current:

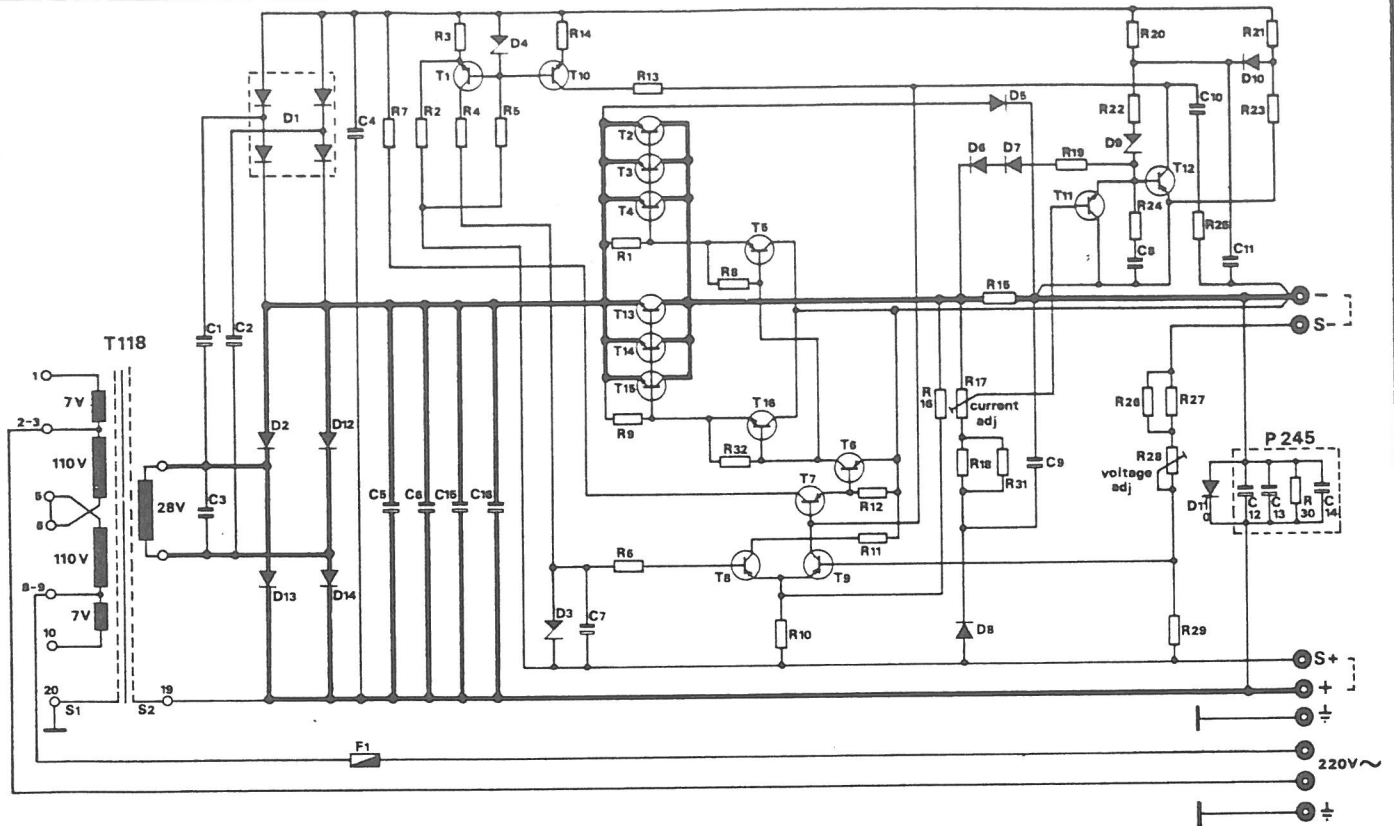
The M 24-20 is designed to supply still 24 V 20 A when the input drops 10 % below normal. The maximum VA the M 24-20 can supply depends on the lowest AC line voltage that can be expected during operation.



Size and weight:

412 x 132.5 x 260 mm. 18 kgs.





R = Ohm

C = Microfarad

T

1 = 10
2 = CR
3 = 820
4 = 3,3 k
5 = 15 k
6 = 1 k
7 = 1 k 0,7W
8 = 120
9 = 10
10 = 1,8 k
11 = 820
12 = 3,3 k
13 = 22 k
14 = 10 k
15 = 0,05 50W WW
16 = CR
17 = 1 k 20 trn.potm.
18 = 27 k
19 = 820
20 = 47 k
21 = 6,8 k
22 = 100 k
23 = 8,2 k
24 = 1,5 k
25 = 150
26 = CR
27 = 3,3 k
28 = 1 k 20 trn.potm.
29 = 1,2 k
30 = 1 k 1W
31 = CR
32 = 120

1 = 22 63 V
2 = 22 63 V
3 = 1 250 V
4 = 100 100 V
5 = 12000 40 V
6 = 12000 40 V
7 = 10 35 V
8 = 2,2 16 V
9 = 220 40 V
10 = 0,22 63 V
11 = 22 63 V
12 = 220 63 V
13 = 220 63 V
14 = 220 63 V
15 = 12000 40 V
16 = 12000 40 V

D		
1 = KB10-B80C1000	Hermann	
2 = 1 N 249 C	RCA	
3 = 1 N 825		
4 = ZPD 6,8	ITT	
5 = 60 S 1	IR	
6 = 1 N 4148	TI	
7 = 1 N 4148	TI	
8 = 1 N 4003	TI	
9 = ZY 12	ITT	
10 = 1 N 4148	TI	
11 = 1 N 249 C	RCA	
12 = 1 N 249 C	RCA	
13 = 1 N 249 C	RCA	
14 = 1 N 249 C	RCA	

1 = 2 N 3053	RCA
2 = 2 N 3055	RCA
3 = 2 N 3055	RCA
4 = 2 N 3055	RCA
5 = 2 N 3055	RCA
6 = 2 N 4037	RCA
7 = BC 556 A	Siemens
8 = BC 556 A	Siemens
9 = BC 556 A	Siemens
10 = BC 546 A	Siemens
11 = BC 546 A	Siemens
12 = BC 556 A	Siemens
13 = 2 N 3055	RCA
14 = 2 N 3055	RCA
15 = 2 N 3055	RCA
16 = 2 N 3055	RCA

All other resistors metal-film 0,4W 2%

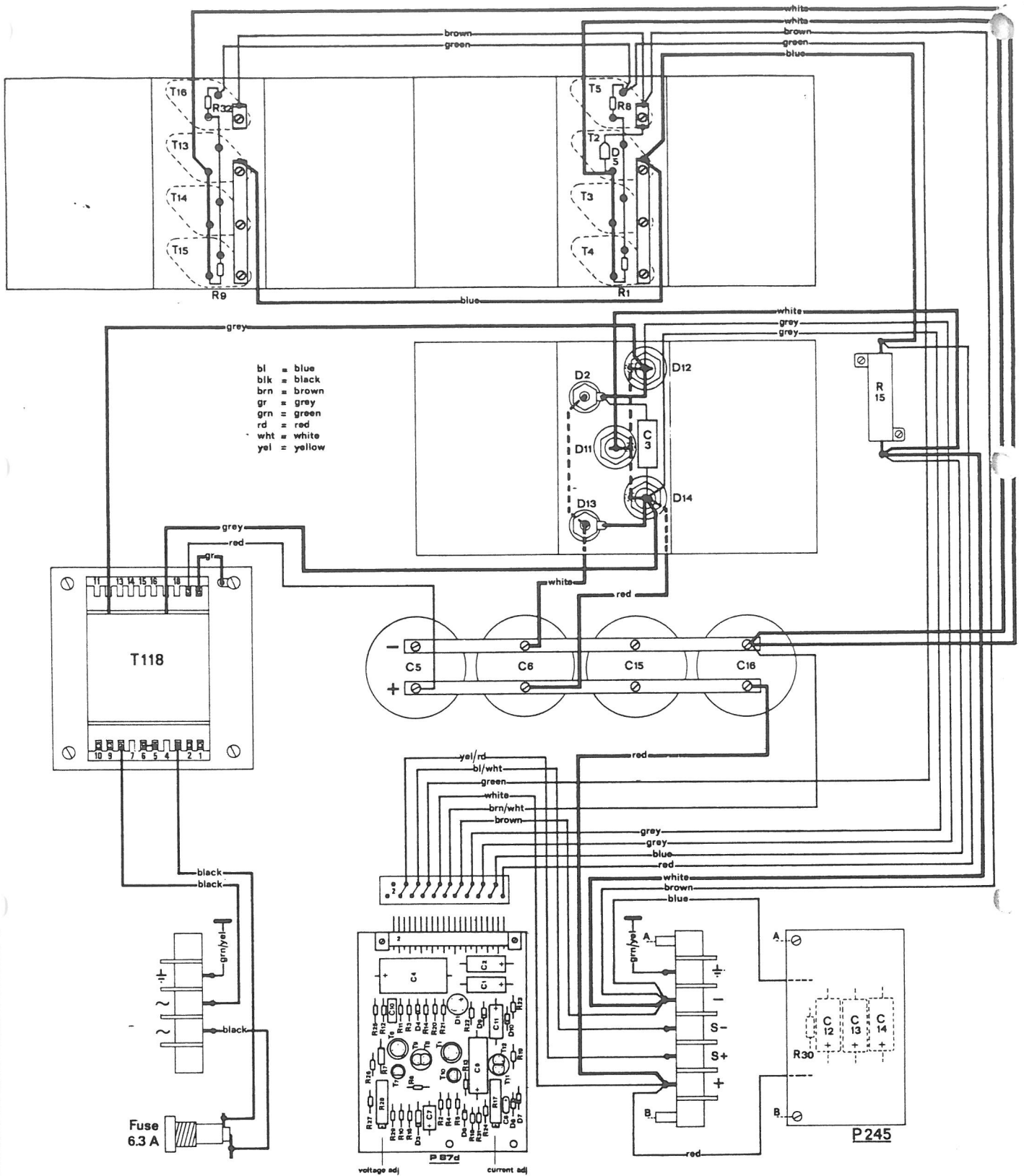
WW = Wire wound resistor

CR = Calibration resistor

F1 = fuse 6,3 A - 6x32 mm

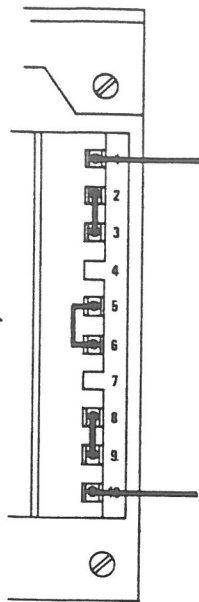
P87d (R31, R32)	10-82	Vr	Title: M24-20
			Date: 11-79
Modifications	Date	App.	delta elektronika bv



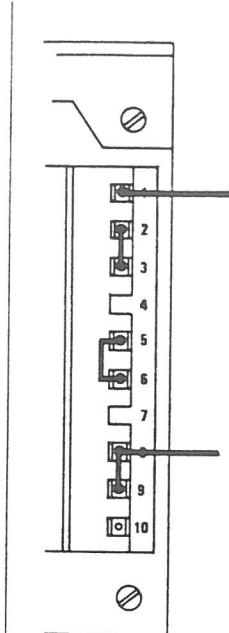


P87d (R31, R32)	10.82	Vr	Title: M24 - 20 wiring diagram
			Date: 11 - 79
Modifications	Date	App.	delta elektronika bv

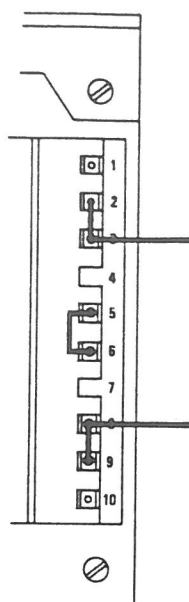
Transformer connections T118



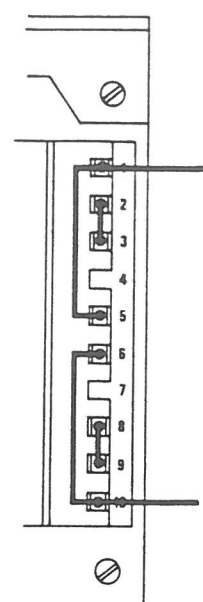
234V~
Fuse 6.3A



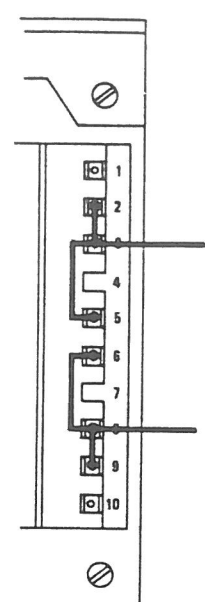
227V~
Fuse 6.3A



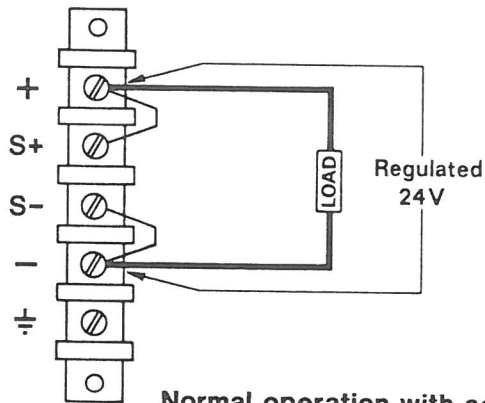
220V~
Fuse 6.3A



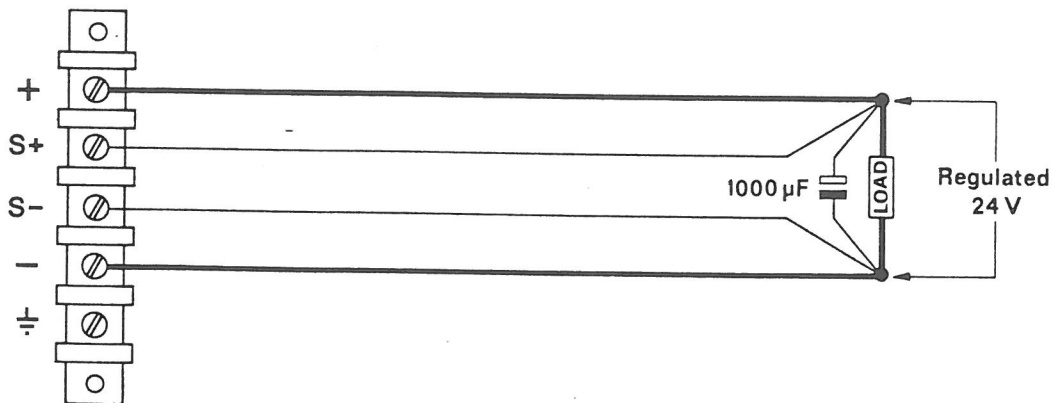
117V~
Fuse 10A



110V~
Fuse 10A



Normal operation with sense points connected to the + and - output terminals



Remote sensing to compensate voltage drop over load line

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