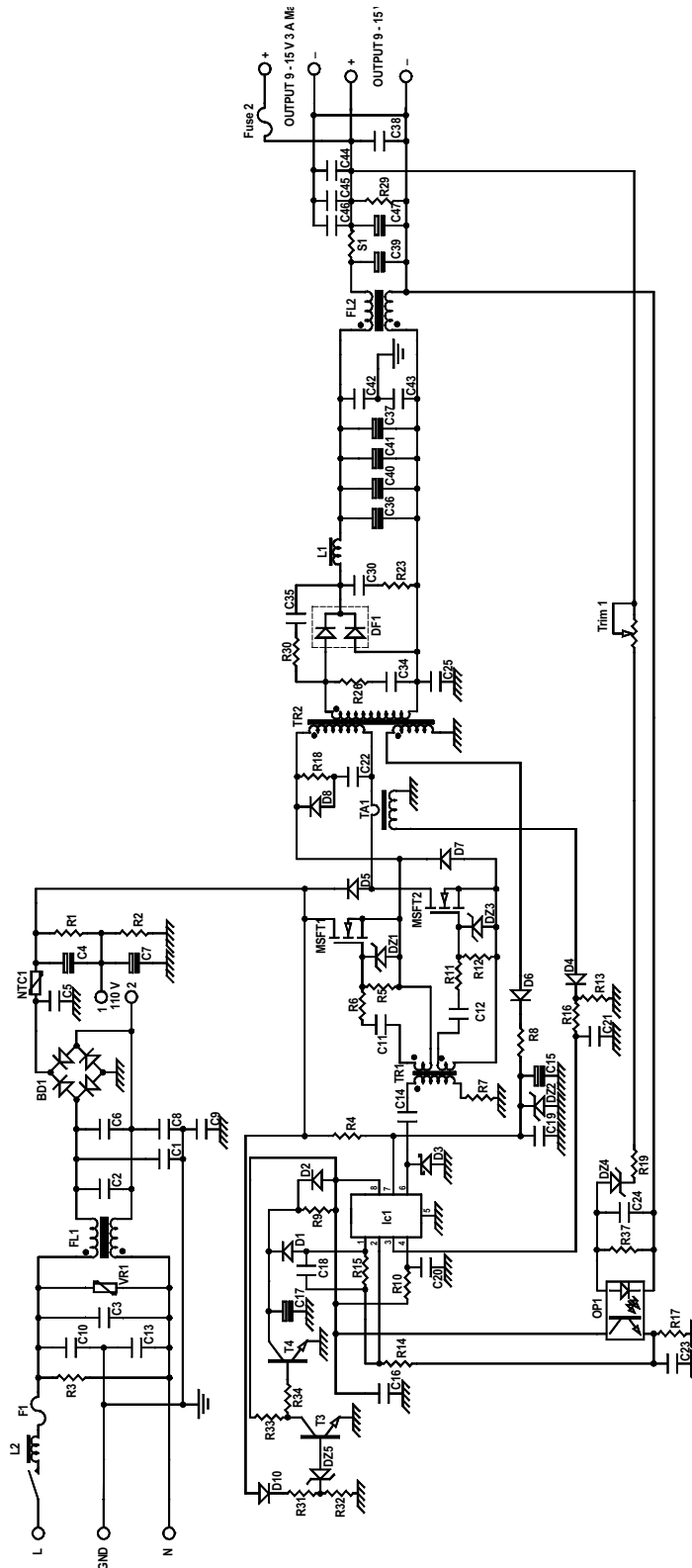
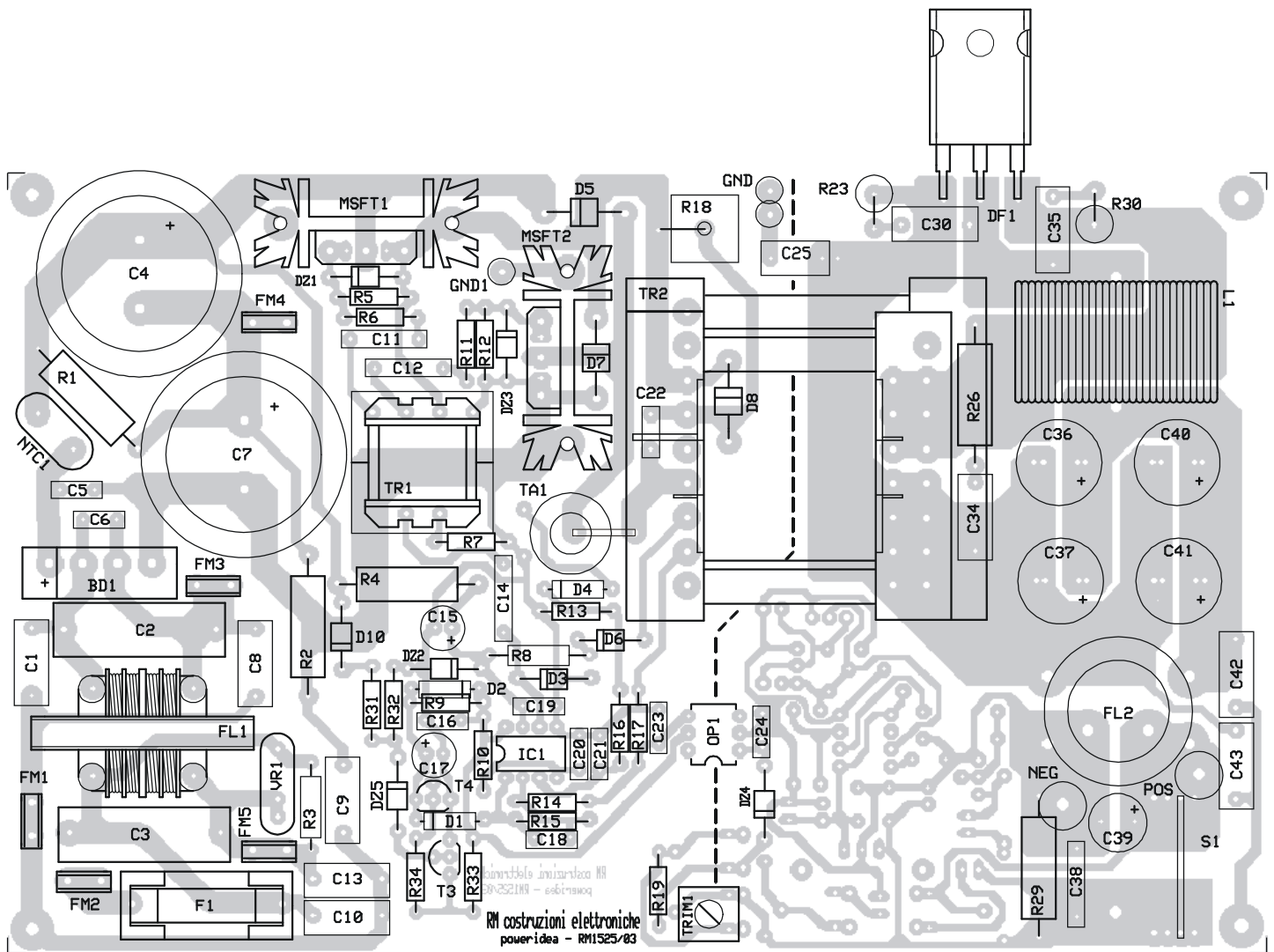


Mod. SPS 20 Power supply

Schematic diagram

Version 2.00





List of components

C 1	=	2,2 nF	250 V~ Y			
C 2	=	220 nF	275 V~ X2			
C 3	=	470 nF	275 V~ X2			
C 4	=	470 µF	200 V			
C 5	=	4,7 nF	1000 V	Ceramic		
C 6	=	4,7 nF	1000 V	Ceramic		
C 7	=	470 µF	200 V			
C 8	=	2,2 nF	250 V~ Y			
C 9	=	4,7 nF	250 V~ Y			
C 10	=	2,2 nF	250 V~ Y			
C 11	=	220 nF	100 V	Polyester		
C 12	=	220 nF	100 V	Polyester		
C 13	=	2,2 nF	250 V~ Y			
C 14	=	1,0 µF	100 V	Polyester		
C 15	=	47 µF	50 V			
C 16	=	100 nF	63 V	Polyester MKT		
C 17	=	33 µF	25 V			
C 18	=	33 nF	63 V	Polyester		
C 19	=	100 nF	63 V	Polyester		
C 20	=	2,2 nF	63 V	Polyester		
C 21	=	470 pF	50 V	Ceramic		
C 22	=	1,0 nF	1000 V	Ceramic		
C 23	=	10 nF	63 V	Polyester		
C 24	=	10 nF	63 V	Polyester		
C 25	=	10 nF	630 V	Polyester		
C 30	=	2,2 nF	1000 V	Polyester		
C 34	=	4,7 nF	1000 V	Polyester		
C 35	=	10 nF	630 V	Polyester		
C 36	=	1000 µF	25 V	105°C		
C 37	=	1000 µF	25 V	105°C		
C 38	=	1,0 µF	100 V	Polyester MKT		
C 39	=	470 µF	25 V	105°C		
C 40	=	1000 µF	25 V	105°C		
C 41	=	1000 µF	25 V	105°C		
C 42	=	1,0 µF	100 V	Polyester		
C 43	=	1,0 µF	100 V	Polyester		
C 44	=	1,0 nF	50 V	Ceramic		
C 45	=	47 nF	50 V	Ceramic		
C 46	=	1,0 µF	50 V	Multilayer		

C ₄₇ =	470 μF	35 V 105 °C	T ₄ =	BC 337-25
R ₁ =	56 KΩ	3 W	MSFT ₁ =	IRF 840
R ₂ =	56 KΩ	3 W	MSFT ₂ =	IRF 840
R ₃ =	470 KΩ	½ W	Ic ₁ =	UC 3844
R ₄ =	100 KΩ	3 W	OP ₁ =	4N25
R ₅ =	1,0 KΩ	¼ W	TA ₁ =	Toroid 10-50/1 cod. RM10
R ₆ =	18 Ω	¼ W	TR ₁ =	EF20/37/32/32 cod. RM20 orr.
R ₇ =	10 Ω	¼ W	TR ₂ =	ETD 39-RM 1525 cod. RM39
R ₈ =	10 Ω	1 W	FL ₁ =	6,8 mH 4A cod. RM30
R ₉ =	220 KΩ	¼ W	FL ₂ =	2 x 25 μH 30 A cod. RML
R ₁₀ =	8,2 KΩ	¼ W	L ₁ =	60 μH 30 A cod. RMTRI
R ₁₁ =	18 Ω	¼ W	L ₂ =	20 mH cod. RMIND
R ₁₂ =	1,0 KΩ	¼ W	Fuse =	Fast 3 A (220 V) 4 A (110 V)
R ₁₃ =	10 Ω	¼ W		
R ₁₄ =	22 KΩ	¼ W		
R ₁₅ =	680 KΩ	¼ W		
R ₁₆ =	470 Ω	¼ W		
R ₁₇ =	2,7 KΩ	¼ W		
R ₁₈ =	15 KΩ	5 W		
R ₁₉ =	180 Ω	¼ W		
R ₂₃ =	10 Ω	3 W		
R ₂₆ =	10 Ω	2 W		
R ₂₉ =	68 Ω	5 W		
R ₃₀ =	10 Ω	3 W		
R ₃₁ =	330 KΩ	¼ W		
R ₃₂ =	27 KΩ	¼ W		
R ₃₃ =	8,2 KΩ	¼ W		
R ₃₄ =	1,0 KΩ	¼ W		
R ₃₇ =	2,2 KΩ	¼ W		
NTC ₁ =	4,7 Ω			
VR ₁ =	275 Vac			
Trim ₁ =	4,7 KΩ			
S ₁ =	1 x wire φ 1,0 mm x 20 mm			
D ₁ =	1N 4148			
D ₂ =	1N 4148			
D ₃ =	BAT 49			
D ₄ =	1N 4148			
D ₅ =	BYV 26 E/1000			
D ₆ =	BYV 26 E/1000			
D ₇ =	BYV 26 E/1000			
D ₈ =	BYV 26 E/1000			
D ₁₀ =	1N4007			
DF ₁ =	BYW99P-200			
DZ ₁ =	15 V 1,3 W			
DZ ₂ =	20 V 1,3 W			
DZ ₃ =	15 V 1,3 W			
DZ ₄ =	7,5 V ½ W			
DZ ₅ =	8,2 V 1,3 W			
BD ₁ =	KBU 606			
T ₃ =	BC 337-25			