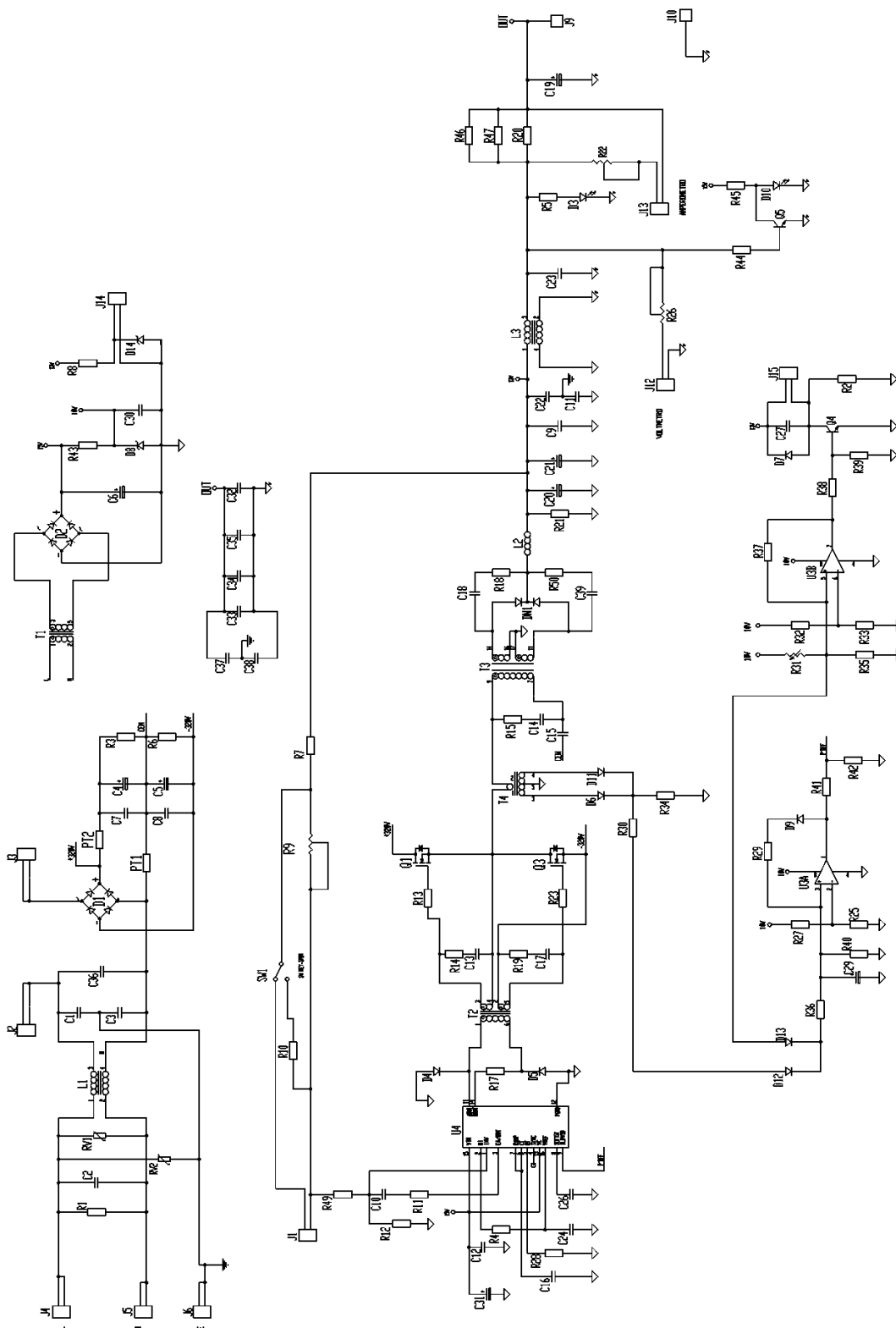
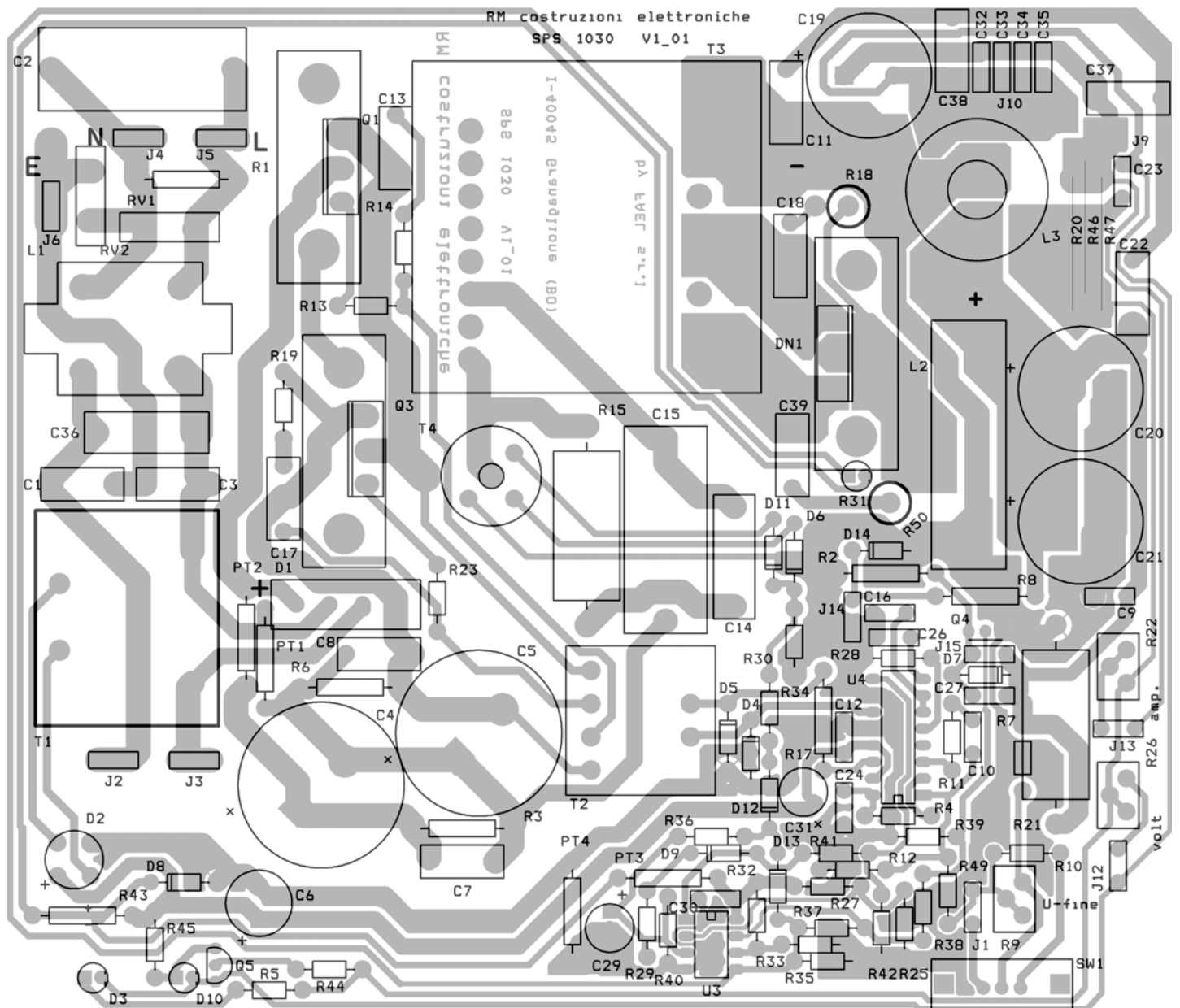


## Mod. SPS 1030 S Power supply

Schematic diagram

Version 1.01





**List of components**

C 1	=	10 nF	275 V~ Y	
C 2	=	680 nF	275 V~ X2	
C 3	=	10 nF	275 V~ Y	
C 4	=	680 µF	200 V	
C 5	=	680 µF	200 V	
C 6	=	470 µF	25 V	
C 7	=	10 nF	630 V	
C 8	=	10 nF	630 V	
C 9	=	100 nF	50 V	Polyester
C 10	=	2,2 nF	50 V	Polyester
C 11	=	1,0 µF	100 V	Polyester
C 12	=	100 nF	50 V	Polyester
C 13	=	10 nF	630 V	
C 14	=	1,0 nF	3 KV	Ceramic
C 15	=	2,2 µF	250 V	Polyester
C 16	=	1,0 nF	50 V	Polyester

C 17	=	10 nF	630 V	
C 18	=	10 nF	630 V	
C 19	=	2200 µF	25 V	105 °C
C 20	=	2200 µF	25 V	105 °C
C 21	=	2200 µF	25 V	105 °C
C 22	=	1,0 µF	100 V	Polyester
C 23	=	100 nF	50 V	Polyester
C 24	=	100 nF	50 V	Polyester
C 25	=	not present		
C 26	=	100 nF	50 V	Polyester
C 27	=	100 nF	50 V	Polyester
C 28	=	not present		
C 29	=	10 µF	25 V	
C 30	=	100 nF	50 V	Polyester
C 31	=	100 µF	25 V	
C 32	=	470 pF	50 V	Ceramic
C 33	=	100 pF	50 V	Ceramic

C <sub>34</sub> =	10 nF	50 V	Polyester	R <sub>45</sub> =	1,0 K $\Omega$	¼ W
C <sub>35</sub> =	100 nF	50 V	Polyester	R <sub>46</sub> =	20 mm $\phi$ 1 mm resistive wire	
C <sub>36</sub> =	220 nF	275 V~ X2		R <sub>47</sub> =	20 mm $\phi$ 1 mm resistive wire	
C <sub>37</sub> =	1,0 $\mu$ F	100 V	Polyester	R <sub>48</sub> =	not present	
C <sub>38</sub> =	1,0 $\mu$ F	100 V	Polyester	R <sub>49</sub> =	220 $\Omega$	¼ W
C <sub>39</sub> =	10 nF	630 V		R <sub>50</sub> =	120 $\Omega$	2 W
R <sub>1</sub> =	470 K $\Omega$	½ W		RV <sub>1</sub> =	275 Vac	
R <sub>2</sub> =	68 $\Omega$	1 W		RV <sub>2</sub> =	275 Vac	
R <sub>3</sub> =	47 K $\Omega$	2 W		D <sub>1</sub> =	KBU 806	
R <sub>4</sub> =	3,3 K $\Omega$	¼ W		D <sub>2</sub> =	Diode Bridge 1,5 A	
R <sub>5</sub> =	1,0 K $\Omega$	¼ W		D <sub>3</sub> =	Green Led	
R <sub>6</sub> =	47 K $\Omega$	2 W		D <sub>4</sub> =	1N 5819	
R <sub>7</sub> =	2,2 K $\Omega$	¼ W		D <sub>5</sub> =	1N 5819	
R <sub>8</sub> =	LM 7808CV			D <sub>6</sub> =	1N 4148	
R <sub>9</sub> =	22 K $\Omega$	¼ W		D <sub>7</sub> =	1N4007	
R <sub>10</sub> =	3,3 K $\Omega$	¼ W		D <sub>8</sub> =	Zener 10 V 1,3 W	
R <sub>11</sub> =	4,7 K $\Omega$	¼ W		D <sub>9</sub> =	1N 4148	
R <sub>12</sub> =	3,3 K $\Omega$	¼ W		D <sub>10</sub> =	Red Led	
R <sub>13</sub> =	47 $\Omega$	¼ W		D <sub>11</sub> =	1N 4148	
R <sub>14</sub> =	220 $\Omega$	¼ W		D <sub>12</sub> =	1N 4148	
R <sub>15</sub> =	1,0 K $\Omega$	5 W		D <sub>13</sub> =	1N 4148	
R <sub>16</sub> =	not present			DN <sub>1</sub> =	BYW 99P	
R <sub>17</sub> =	47 $\Omega$	1 W		Q <sub>1</sub> =	IRFP 450	
R <sub>18</sub> =	120 $\Omega$	2 W		Q <sub>2</sub> =	not present	
R <sub>19</sub> =	220 $\Omega$	¼ W		Q <sub>3</sub> =	IRFP 450	
R <sub>20</sub> =	20 mm $\phi$ 1 mm resistive wire			Q <sub>4</sub> =	BC 337-25	
R <sub>21</sub> =	56 $\Omega$	5 W		Q <sub>5</sub> =	BC 337-25	
R <sub>22</sub> =	4,7 K $\Omega$	Trimmer PT10		U <sub>3</sub> =	LM 358N	
R <sub>23</sub> =	47 $\Omega$	¼ W		U <sub>4</sub> =	UC 3825	
R <sub>24</sub> =	not present			T <sub>1</sub> =	230V-12V 2.3VA	
R <sub>25</sub> =	4,7 K $\Omega$	¼ W		T <sub>2</sub> =	Trasf Pil 1030	
R <sub>26</sub> =	220 K $\Omega$	Trimmer PT10		T <sub>3</sub> =	Trasf Pot 1030	
R <sub>27</sub> =	2,2 K $\Omega$	¼ W		T <sub>4</sub> =	Sens. Corr	
R <sub>28</sub> =	15 K $\Omega$	¼ W		L <sub>1</sub> =	5,5 mH	
R <sub>29</sub> =	1,0 K $\Omega$	¼ W		L <sub>2</sub> =	10 $\mu$ H 30 A ANRA 716	
R <sub>30</sub> =	1,0 K $\Omega$	¼ W		L <sub>3</sub> =	2 x 100 $\mu$ H	
R <sub>31</sub> =	4,7 K $\Omega$	NTC		SW <sub>1</sub> =	PCDSwitch	
R <sub>32</sub> =	3,3 K $\Omega$	¼ W		Fan =	Fan 12V 60 x 60 mm	
R <sub>33</sub> =	2,2 K $\Omega$	¼ W				
R <sub>34</sub> =	330 $\Omega$	¼ W				
R <sub>35</sub> =	1,0 K $\Omega$	¼ W				
R <sub>36</sub> =	1,0 K $\Omega$	¼ W				
R <sub>37</sub> =	2,2 K $\Omega$	¼ W				
R <sub>38</sub> =	1,0 K $\Omega$	¼ W				
R <sub>39</sub> =	1,0 K $\Omega$	¼ W				
R <sub>40</sub> =	15 K $\Omega$	¼ W				
R <sub>41</sub> =	4,7 K $\Omega$	¼ W				
R <sub>42</sub> =	1,0 K $\Omega$	¼ W				
R <sub>43</sub> =	47 $\Omega$	1 W				
R <sub>44</sub> =	2,2 K $\Omega$	¼ W				