

## Modules manufactured in France and interchangeable with various foreign models

Highly reliable mini-modules, mains powered, with maximum thermal dissipation facilitated by epoxy resin internal casting.

Being encapsulated, this power supply becomes a simple component, compact, tropicalized, isolated, and unaffected by moisture or vibrations.

90 basic models, single, dual or triple source, provide fixed or adjustable voltage 5 to 48V (0 to 500V **upon request**), from 6W to 24W (and new: powers up to 72W).

30 common options offer even more possibilities.

In the standard version, cases are equipped with 2 M3 inserts and 1mm Ø pins for mounting on printed circuit.

3 other optional mounting possibilities:

- 1) **mounting on wall:** with "B" or "BV" block
- 2) **mounting on DIN rail:** 2 steel clips "C" to be simply adapted
- 3) **mounting on DIN rail:** special "RD" case for DIN rail

### Electrical data

- ♦ "Vin" input: 230V ±10% / 50 to 400Hz
- ♦ "Vout" output:
  - fixed voltage model: 1% of nominal Vout (at 20°C)
  - adjustable voltage model: with integrated setting
- ♦ Linear regulation:
  - mains supply 230V varying up to ± 10%: <  $10^{-3}$  of Vout
  - load ranging from 0 to maximum:
    - $4 \cdot 10^{-3}$  of Vout for models ≤ 6V
    - $2 \cdot 10^{-3}$  of Vout for models > 6V
- ♦ Response time: < 30µs
- ♦ Residual ripple: < 1mV rms (<  $5 \cdot 10^{-4}$  for 48V to 500V)
- ♦ Dielectric strength inputs/outputs: > 2500V rms under 5mA
- ♦ Isolation inputs/outputs: 4000V DC under 1mA during 1 minute
- ♦ Isolation outputs/mechanical grounding: > 100MΩ under 500V

### Protections

- ♦ Overloads and short circuits: fast limitation of the current
- ♦ Excessive temperature rise: firstly, automatic and progressive limitation of the current, and secondly, shutoff.
- ♦ Sealing: IP67 (except for connections)
- ♦ Possible external time-delay fuse:  
 $i \approx$  power supply (W) / 50V; example: for a supply 5V / 2A → 0.2A fuse

### Standards

- ♦ EN50081
- ♦ EN50082
- ♦ EN60950
- ♦ RoSH

### Thermal performances

- ♦ Storage: -40 to +85 °C
- ♦ Operating temperature: -30 to +70°C with 2% decrease of current per degree from 45°C, or from 50°C for metallic cases
- ♦ Temperature coefficient:  $\leq 2 \cdot 10^{-4}$  of Vout per degree °C

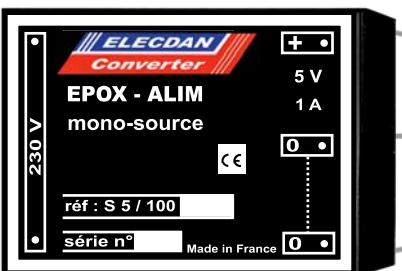
### Mounting

- ♦ Two M3 inserts for cases T1, T2, T3, and T4 on its big face
- ♦ Four M3 inserts for cases U and U1

Option No.	To be added to SKU	OPTIONS & ACCESSORIES				
1	B	<p>"Faston" block lugs 2.85mm</p>				
2	BV	<p>Screws to tighten wires Holes for connections 2.5mm<sup>2</sup></p>				
3	FL	Multicolored output wires				
4	C	Adaptation for DIN rail: 2 steel clips to screw				
5	RD	Special case for DIN rail				
6	Q	Plate for screw terminal shroud				
7	T	Sockets Ø 4mm + ON/OFF switch + LED + cord				
8	M	Aluminum case 6 faces				
9	24/48	Other input voltages instead of 230V <table border="0" style="margin-left: 20px;"> <tr> <td>24 or 48V ~</td> <td rowspan="3" style="vertical-align: middle;">{</td> </tr> <tr> <td>115V ~</td> </tr> <tr> <td>400V ~</td> </tr> </table>	24 or 48V ~	{	115V ~	400V ~
24 or 48V ~	{					
115V ~						
400V ~						
10	115					
11	400					
12	110/230	Dual input voltage				
13	write output voltage	Other output voltages (upon request) <table border="0" style="margin-left: 20px;"> <tr> <td>for Vs &gt; 24V</td> <td rowspan="2" style="vertical-align: middle;">{</td> </tr> <tr> <td>for Vs ≥ 24V (upto 100V)</td> </tr> </table>	for Vs > 24V	{	for Vs ≥ 24V (upto 100V)	
for Vs > 24V	{					
for Vs ≥ 24V (upto 100V)						
14	E	Metal shield (protecting against fast parasites)				
15	F	Built-in fuse holder				
16	10T	10 turns potentiometer (instead of single-turn) for each channel; adjustment ±10%				
17	PD	Remote adjustment potentiometer				
18	P	Protection against output overloads				
19	H / HG	Non isolated / isolated remote ON/OFF				
20	TEL	Remote sense (for each channel)				
21	CR	Adjustable output current from 0 to nominal i				
22	CS	Detection of mains outages within 2 ms				
23	DSHB	Thresholds (high and low) detection, adjustable				
24	HR Hstab	High regulation of mains $10^{-5}$ High thermal stability $2 \cdot 10^{-5}$ / °C				
25	PT	Controllable output voltage (by 0 to 10V)				
26		Printing specific templates labels				
27	IC / IT	Copy 0 to 10V, current / voltage				
28	CEA	Eurocard (100x160mm) + H15 terminal + front panel				
29	TEA	3U rack + H15 terminal				
30	RAD	Dissipator 27mm				

\* Upon request: other voltages, currents, adjustments, presentations, etc.

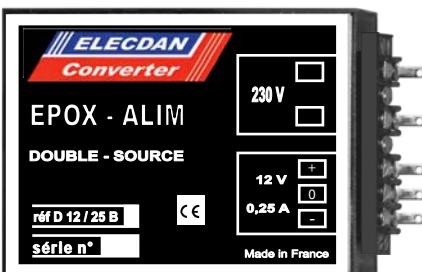
SINGLE SOURCE		
Cases Dimensions (mm) Weight	SKU	Output voltage Output current $V_{out} / I_{out}$
<b>R1</b> (epoxy housing) Outputs only on pins <b>40 x 40 x 22 ; 100g</b>	S 5 / 12	05V / 0.12A
	S 12 / 06	12V / 0.06A
	S 15 / 05	15V / 0.05A
	S 18 / 03	18V / 0.03A
	S 24 / 02	24V / 0.025A
<b>S</b> (epoxy housing) Outputs on pins, Faston or screw terminals <b>51 x 51 x 26 ; 200g</b>	S 5 / 20	5V / 0.2A
	S 12 / 10	12V / 0.1A
	S 15 / 08	15V / 0.08A
	S 18 / 06	18V / 0.06A
	S 24 / 05	24V / 0.05A
<b>T1</b> (epoxy housing or 6 faces aluminum) Outputs on pins, Faston or screw terminals <b>89 x 64 x 26 ; 450g</b> Option RD available	S 5 / 50	5V / 0.5A
	S 12 / 25	12V / 0.25A
	S 15 / 20	15V / 0.2A
	S 18 / 15	18V / 0.15A
	S 24 / 12	24V / 0.12A
	S 48 / 06	48V / 0.06A
<b>T2</b> (epoxy housing or 6 faces aluminum) Outputs on pins, Faston or screw terminals <b>89 x 64 x 32 ; 550g</b> Option RD available	S 5 / 100	5V / 1A
	S 12 / 50	12V / 0.5A
	S 15 / 40	15V / 0.4A
	S 18 / 30	18V / 0.3A
	S 24 / 25	24V / 0.25A
	S 48 / 12	48V / 0.12A
<b>T3</b> (epoxy housing or 6 faces aluminum) Outputs on pins, Faston or screw terminals <b>89 x 64 x 41 ; 750g</b> Option RD available	S 5 / 150	5V / 1.5A
	S 5 / 200	5V / 2A
	S 12 / 75	12V / 0.75A
	S 12 / 100	12V / 1A
	S 15 / 60	15V / 0.6A
	S 15 / 80	15V / 0.8A
<b>T4</b> (epoxy housing or 6 faces aluminum) Outputs on pins, Faston or screw terminals <b>89 x 64 x 49 ; 780g</b> Option RD available	S 18 / 45	18V / 0.45A
	S 24 / 35	24V / 0.35A
	S 48 / 15	48V / 0.15A
	S 5 / 240	5V / 2.4A
	S 12 / 120	12V / 1.2A
	S 15 / 100	15V / 1A
<b>U</b> (epoxy housing) Outputs on pins, Faston or screw terminals <b>100 x 100 x 42 ; 1.4kg</b> Option RD available	S 18 / 60	18V / 0.6A
	S 24 / 50	24V / 0.5A
	S 48 / 20	48V / 0.2A
	S 5 / 300	5V / 3A
	S 12 / 150	12V / 1.5A
	S 15 / 120	15V / 1.2A
<b>U1</b> (epoxy housing) Outputs on pins, Faston or screw terminals <b>100 x 100 x 55 ; 1.5kg</b> Option RD available	S 18 / 90	18V / 0.9A
	S 24 / 75	24V / 0.75A
	S 48 / 40	48V / 0.4A
	S 5 / 400	5V / 4A
	S 12 / 200	12V / 2A
	S 15 / 150	15V / 1.5A
<b>U2</b> (metallic housing) Version for wall mounting: Faston or screw terminal Version mounting with RD: external screw terminal <b>170 x 121 x 55 ; 3kg</b>	S 18 / 120	18V / 1.2A
	S 24 / 100	24V / 1A
	S 48 / 50	48V / 0.5A
	S 5 / 500	5V / 5A
	S 12 / 250	12V / 2.5A
	S 15 / 200	15V / 2A
<b>U3</b> (metallic housing) Version for wall mounting: Faston or screw terminal Version mounting with RD: external screw terminal <b>170 x 121 x 87 ; 3.3kg</b>	S 24 / 125	24V / 1.25A
	S 5 / 800	5V / 8A
	S 12 / 400	12V / 4A
	S 15 / 320	15V / 3.2A
	S 24 / 200	24V / 2A
	S 5 / 1200	5V / 12A
<b>U4</b> (metallic housing) Version for wall mounting: Faston or screw terminal Version mounting with RD: external screw terminal <b>223 x 150 x 78 ; 4.8kg</b>	S 12 / 600	12V / 6A
	S 15 / 400	15V / 4A
	S 24 / 300	24V / 3A



Standard outputs on pins



Optional outputs on screw terminal  
(add BV at the end of SKU)



Optional outputs on Faston terminal  
(add B at the end of SKU)



Optional case for DIN rail  
(add RD at the end of SKU)

**Upon request:** other presentations; adjustable, controllable, or fixed voltages and currents

SINGLE SOURCE with built-in setting		
Cases (see characteristics in the left table)	SKU	Output voltage Output current $V_{out} / I_{out}$
<b>R1</b>	SR 6 / 08	3 to 6V / 0.08A
	SR 12 / 04	5 to 15V / 0.04A
<b>S</b>	SR 6 / 15	3 to 6V / 0.15A
	SR 12 / 07	5 to 15V / 0.075A
<b>T1</b>	SR 6 / 40	3 to 6V / 0.4A
	SR 12 / 10	5 to 15V / 0.1A
<b>T2</b>	SR 6 / 80	3 to 6V / 0.8A
	SR 12 / 20	5 to 15V / 0.2A
<b>T3</b>	SR 6 / 120	3 to 6V / 1.2A
	SR 6 / 160	3 to 6V / 1.6A
	SR 12 / 30	5 to 15V / 0.3A
<b>T4</b>	SR 12 / 40	5 to 15V / 0.4A
<b>U</b>	SR 6 / 200	3 to 6V / 2A
	SR 12 / 60	5 to 15V / 0.6A

## DUAL SOURCE

<b>S</b>	D 5 / 10	$\pm 5V / 0.1A$
	D 12 / 04	$\pm 12V / 0.04A$
	D 15 / 03	$\pm 15V / 0.03A$
<b>T1</b>	D 5 / 25	$\pm 5V / 0.25A$
	D 12 / 12	$\pm 12V / 0.12A$
	D 15 / 10	$\pm 15V / 0.1A$
<b>T2</b>	D 5 / 50	$\pm 5V / 0.5A$
	D 12 / 25	$\pm 12V / 0.25A$
	D 15 / 20	$\pm 15V / 0.2A$
<b>T3</b>	D 5 / 60	$\pm 5V / 0.6A$
	D 5 / 80	$\pm 5V / 0.8A$
	D 12 / 35	$\pm 12V / 0.35A$
<b>T4</b>	D 12 / 50	$\pm 12V / 0.5A$
	D 15 / 30	$\pm 15V / 0.3A$
	D 15 / 40	$\pm 15V / 0.4A$
<b>U</b>	D 5 / 100	$\pm 5V / 1A$
	D 12 / 60	$\pm 12V / 0.6A$
	D 15 / 50	$\pm 15V / 0.5A$
<b>U1</b>	D 5 / 12	$\pm 5V / 1.2A$
	D 12 / 80	$\pm 12V / 0.8A$
	D 15 / 70	$\pm 15V / 0.7A$
<b>U2</b>	D 5 / 150	$\pm 5V / 1.5A$
	D 12 / 100	$\pm 12V / 1A$
<b>U3</b>	D 15 / 80	$\pm 15V / 0.8A$
	D 12 / 125	$\pm 12V / \pm 1.25A$
<b>U4</b>	D 15 / 100	$\pm 15V / \pm 1A$
<b>U4</b>	D 12 / 200	$\pm 12V / \pm 2A$
	D 15 / 160	$\pm 15V / \pm 1.6A$
<b>U4</b>	D 12 / 300	$\pm 12V / \pm 3A$
	D 15 / 240	$\pm 15V / \pm 2.4A$

## TRIPLE SOURCE

<b>T2</b>	T 5 / 12	5V & $\pm 12V / 0.5A & \pm 0.12A$
	T 5 / 10	5V & $\pm 15V / 0.5A & \pm 0.1A$
<b>T3</b>	T 5 / 25	5V & $\pm 12V / 0.5A & \pm 0.25A$
	T 10 / 12	5V & $\pm 12V / 1A & \pm 0.12A$
	T 5 / 20	5V & $\pm 12V / 0.5A & \pm 0.2A$
<b>T</b>	T 10 / 10	5V & $\pm 15V / 1A & \pm 0.1A$
	T 10 / 30	5V & $\pm 12V / 1A & \pm 0.3A$
	T 10 / 25	5V & $\pm 15V / 1A & \pm 0.25A$