

Modules equipped with streamlined DC/DC converters, dust & water-resistant IP67, available in two presentations for optimum space saving and heat dissipation:

- **3**: special dissipator, mounting on side or front, on DIN rail or wall; connections through 4 streamlined clamps for wires  $\leq 72\text{mm}^2$
- **1C1**: weldable on printed circuit (not  $\frac{1}{2}$  brick); the built-in fan "50,000 h"-12V-5W must be powered through pins No. 10 and 11.

### Electrical data

#### ◆ "Vin" Input (protected against undervoltage and surge pulses)

- two voltage input ranges available:
  - 9 to 36V (accidental max.: 50V / 0.1s)
  - 18 to 75V (accidental max.: 100V / 0.1s)
- no load consumption: 50mA to 200mA (see table)
- possible external *time-delay* fuse: 25A (12A for 18 to 75V)
- optional "ON/OFF" remote control for case **3**

#### ◆ "Vout" Output

- 5V/12V/15V/24V/28V/48V; accuracy: 1%
- optional fit with embedded "10 revolutions" axis:  $\pm 10\%$
- line and load regulation:  $< 2 \cdot 10^{-3}$  of Vout
- temperature coefficient:  $3 \cdot 10^{-4}$  of Vout, per °C
- switching frequency: fixed ( $\approx 300$  kHz)
- residual ripple:  $\leq 1\%$  of Vout ( $< 2\%$  for 5V)
- nominal efficiency: 87 to 90% (losses  $\leq 22.5\text{W}$ )
- dynamic response:  $< 0.5$  ms, with 25% load variation
- permissive capacitive load:  $2200\mu\text{F}$  to  $\geq 22,000\mu\text{F}$  depending on load

### Protections

- input-output insulation: 1500V DC. Internal filter on the input
- against overload and short circuit (even constant) by pulsed flow
- in case of inductive load: option "L" will reinforce protection
- "inversion Vin" option: internal diode (external fuse required)
- abnormal temperature rise: automatic shutdown and restarting
- total sealing IP67 (except fan for case **1C1**)

### Thermal and environmental performances

- storage:  $-40$  to  $+105^\circ\text{C}$ ; operating:  $-40$  to  $+100^\circ\text{C}$
- cooling **3**: natural convection (derating 3% per °C)
- temperature rise of the case, at full load:  $< 35^\circ\text{C}$
- maximum ambient temperature:
  - $65^\circ\text{C}$  at full power for case **3** ( $70^\circ\text{C}$  for case **1C1**)
  - $82^\circ\text{C}$  at half power for case **3** ( $70^\circ\text{C}$  for case **1C1**)
- vibrations, shocks, humidity: protection by epoxy resin

### Standards and specifications

- marking CE/UL60950-1, ICE60950-1, EN60950-1 / RoHS
- flammability for PA 2002: UL94HB, horizontal test
- MTBF case **3**:  $> 8 \cdot 10^5$  hours, case at  $25^\circ\text{C}$  (MIL-HB217E)
- MTBF fan (easy rapid unplugging): 50,000 hours
- worldwide manufacturers for active parts
- assembling and final controls: ELECDAN-CONVERTER

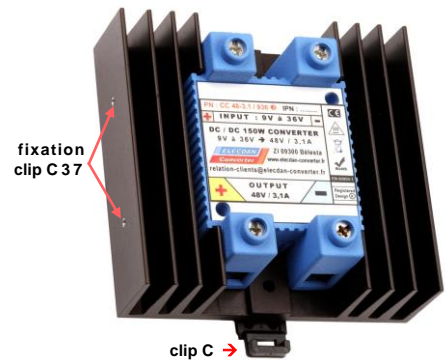
Case mountable on	Dimensions (mm) & Weight	SKU	Connections
DIN rail & wall	112 x 120 x 37 700g	<b>3</b>	screw terminal wires $\leq 72\text{mm}^2$
Printed circuit	64 x 64 x 45 200g	<b>1C1</b>	pins: $\varnothing$ (mm) 1.02 and 2.03

Pin	$\varnothing$ mm	function
1	1	+Vin
2	1	on/off (2-4)
3	1	Case
4	1	-Vin
5	2	-Vout
6	1	-Sense
7	1	Trim
8	1	+Sense
9	2	+Vout
10	1	+ of 12V fan
11	1	0 of 12V fan

OPTIONS and SKU for case <b>3</b>	Vout fit with axis "10 revolutions"	AJ
	inductive load driving	L
	"ON / OFF" remote control	H
	other Vin and/or Vout	value
	remote sense	T
"inversion" protection	PI	

Range & No. sequence	Input range (Volts)	Outputs		no load consu. (mA)	SKU add 3 or 1C1	Pre-tax price
		Volts	Amp			
6-1	9V to 36V	5	30	200	CC 5-30 / 936	
6-2		12	12.5	100	CC 12-12.5 / 936	
6-3		15	10	100	CC 15-10 / 936	
6-4		24	6.25	100	CC 24-6.25/936	
6-5		28	5.3	110	CC 28-5.3 / 936	
6-6		48	3.1	120	CC 48-3.1 / 936	
6-7	18V to 75V	5	30	100	CC 5-30 / 1875	
6-8		12	12.5	50	CC 12-12.5 / 1875	
6-9		15	10	50	CC 15-10 / 1875	
6-10		24	6.25	50	CC 24-6.25/1875	
6-11		28	5.3	55	CC 28-5.3 / 1875	
6-12		48	3.1	60	CC 48-3.1 / 1875	

Case <b>3</b> for DIN rail or wall mounting	
wall	front 112 x 120 : two holes $\varnothing 4.5$ mm, vertical fixing distance 90 mm front 112 x 37 : two M3, vertical fixing distance 50 mm
clip	front 112 x 120 : clip C front 112 x 37 : clip C 37



Case <b>1C1</b> : weldable on printed circuit
64 x 64 x thickness 45 mm; with built-in fan

