

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

- **3** : special heat dissipator, mounting on side or front, on DIN rail or wall; connections through 4 streamlined clamps for wires $\leq 72\text{mm}^2$
 - **1** : integrated dynamic cooling with a mini tubed fan, fast racking-out for fan replacement directly by the user after 50,000 hours.
- Case 96 x 64 x 61 mm thickness, to be mounted on wall or DIN rail.
NB. The range of temperatures is limited (-30 to +70°C).

Electrical data

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

- 60 to 160V (accidental max.: 180V / 0.1s)
- no load consumption: < 15mA at 72V
- possible external time-delay fuse: 7A
- optional "ON/OFF" remote control

◆ "Vout" Output

- 12V / 15V / 24V ; accuracy: 1%
- optional fit with embedded "10 revolutions" axis: $\pm 10\%$
- line and load regulation: < $5 \cdot 10^{-3}$ of Vout
- temperature coefficient: $2 \cdot 10^{-4}$ of Vout, per °C
- switching frequency: fixed (≈ 360 kHz)
- residual ripple: $\leq 1.5\%$ of Vout
- nominal efficiency: 88% (losses < 28W)
- dynamic response: < 0.5 ms, with 25% load variation
- permissive capacitive load: 1000µF to >10,000µF depending on load

Protections

- input-output insulation: 2500V AC. 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 1)

Thermal and environmental performances

- storage **3** : -40 to +100°C ; operating **3** : -40 to +90°C
- cooling **3** : natural convection (derating 2.5% per °C)
- temperature rise of the case, at full load: < 35°C
- maximum ambient temperature:
 - 50°C at full power for case **3** (60°C for case **1**)
 - 70°C at half power for cases **3** and **1**
- 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** : > 150,000 hours, case at 25°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
3 DIN rail & wall	112 x 120 x 37	700g	3	screw terminal, wires $\leq 72\text{mm}^2$
1 DIN rail & wall	96 x 64 x 61	380g	1	

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

Range & No. sequence	Input range (Volts)	Outputs		no load consu. (mA)	SKU	Pre-tax price
		Volts	Amp			
8 - 1	60V to 160V	12	16.6	< 10 at 72V	CC 12-16.6 / 60160	
8 - 2		15	13.3		CC 15-13.3 / 60160	
8 - 3		24	8.3	< 15 at 72V	CC 24-8.3 / 60160	

Case **3** to be mounted on wall or DIN rail

paroi	front 112 x 120 : two holes $\varnothing 4.5$ mm, vertical fixing distance 90 mm
clip	front 112 x 120 : clip C face 112 x 37 : clip C 37



- Case 1** 64 x 96 x thickness 61 mm ; with built-in fan
- DIN rail mounting
 - wall mounting (vertical fixing distance 85 mm)

