

Mini modules DC-DC converters with:

- large input range,
- maximum thermal dissipation facilitated by epoxy resin internal casting and two aluminum sides,
- protection against humidity, dust, shocks and vibrations,
- 3 presentations, for mounting either: on DIN rail or wall (ARD case) / on wall (AP case) / on printed circuit board with "half-brick" connection (ACI case).

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: 15mA to 98mA (see table)
- possible external fuse: 4A (2A for 18 to 75V)
- optional "ON/OFF" remote control

♦ "Vout" Output (soft start in 50ms)

- 5V/12V/15V/±12V/±15V/24V/28V; accuracy: 1%
- optional fit with embedded "10 revolutions" axis: ±10%
- line and load regulation: $< 10^{-3}$ of Vout
- temperature coefficient: 2.10^{-4} of Vout, per °C
- switching frequency: fixed (320 to 390 kHz)
- residual ripple: $\leq 1\%$ of Vout
- nominal efficiency: 83 to 86% (losses $\leq 3W$)
- dynamic response: $< 1\%$ of Vout / 150µs / load 50% to 75%
- permissive capacitive load: 470µF to $\geq 4700\mu F$ depending on load

Protections

- input-output insulation: 2000V 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; this option reduces the efficiency
- abnormal temperature rise: automatic shutdown and restarting
- sealing: IP67 protection against water and dust (for the 3 presentations)

Thermal and environmental performances

- storage: -40 to +125°C ; operating: -40 to +85°C
- cooling: natural convection (derating $\leq 5.5\%$ per °C)
- temperature rise of the case: +20°C (DIN rail) or +25°C (other mounting)
- maximum ambient temperature:
 - 67°C at full power (DIN rail) or 61°C (other mounting)
 - 76°C at half power (DIN rail) or 73°C (other mounting)
- vibrations, shocks, humidity: protection by epoxy resin

Standards and specifications

- marking CE/UL60950-1, ICE60950-1, EN60950-1 / RoHS
- flammability: UL94HB, horizontal test
- MTBF: $> 10^6$ hours, case at 30°C
- worldwide manufacturers for active parts
- assembling and final controls: ELECDAN-CONVERTER

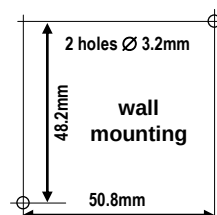
Case mountable on	Length	Width x depth	Material Weight	add SKU	Connections
① DIN rail or wall	69 + 15 mm	64 x 15 mm	115g	ARD	screw terminal
② Wall	64 + 8 mm	64 x 16 mm	110g	AP	wire $\leq 2mm^2$
③ Printed circuit	64 mm	64 x 15 mm	105g	ACI	pin Ø 1mm

OPTIONS and their SKU			
Vout fit with axis "10 revolutions"	AJ	"inversion" protection	PI
inductive load driving	L	wired outputs	F
"ON / OFF" remote control	H	Vout presence indicator	V
other Vin and/or Vout	value	personalized case	P

Range & No. sequence	Input range (Volts)	Outputs		no load consu. (mA)	SKU add ARD or AP or ACI	Pre-tax price
		Volts	Amp			
1 - 1	9V to 36V	5	3	41	CC 5-3 / 936	
1 - 2		12	1.25	15	CC 12-1.25 / 936	
1 - 3		15	1	18	CC 15-1 / 936	
1 - 4		± 12	0.625	95	CC 212-0.625 / 936	
1 - 5		± 15	0.5	100	CC 215-0.5 / 936	
1 - 6		24	0.625	95	CC 24-0.625 / 936	
1 - 7		28	0.53	98	CC 28-0.53 / 936	
1 - 8	18V to 75V	5	3	28	CC 5-3 / 1875	
1 - 9		12	1.25	15	CC 12-1.25 / 1875	
1 - 10		15	1	14	CC 15-1 / 1875	
1 - 11		± 12	0.625	50	CC 212-0.625 / 1875	
1 - 12		± 15	0.5	50	CC 215-0.5 / 1875	
1 - 13		24	0.625	50	CC 24-0.625 / 1875	
1 - 14		28	0.53	52	CC 28-0.53 / 1875	



Case **ARD**
DIN rail or wall mounting
width: 9 + 69 + 6 mm
height: 64 mm
depth: 15 mm



Case **AP**
wall mounting
width: 64 + 8 mm
height: 64 mm
depth: 16 mm



Case **ACI** 64 x 64 x 15 mm, weldable on printed circuit ("half-brick" type of location, pins Ø 1mm)

