600W isolated DC/DC converters
five input ranges, from 9V to 400V

01/07/15
(3097)

www.elecdan-converter.com

With its optimized shape and volume for efficient natural convection cooling, this case can be mounted on wall (on the side) or on DIN rail (on front or side). Connections are made through 4 streamlined clamps for wires ≤ 72 mm². Thermal resistance is 0.5°C/W and can be reduced to 0.25°C/W if required, with optional air flow of 4 m/s.

Electrical data

- "Vin" Input (protected against undervoltage)
  - 5 input ranges available: 9 to 36V / 18 to 36V / 18 to 75V / 36 to 75V / 200 to 400V
  - no load consumption: from 60mA to 400mA (see table)
  - possible external *time-delay* fuse: current (A) = 1200 / Vin min.
  - optional "on/off" remote control
- "Vout" Output
  - 12V / 15V / 24V / 28V / 48V, depending on ranges; accuracy: 1%
  - optional fit with embedded "10 revolutions" axis: ±10%
  - line and load regulation: < 2.10^{-3} of Vout
  - remote sense -S and +S: 2-position mini screw-terminal (wires ≤ 2mm²)
  - temperature coefficient: ≤ 3.10^{-4} of Vout, per °C
  - switching frequency: fixed (≥ 200 kHz)
  - residual ripple: ≤1% of Vout
  - nominal efficiency: 88 to 90% (losses ≤ 82W)
  - dynamic response: < 0.5 ms, with 25% load variation
  - permissive capacitive load: 1000µF to ≥22,000µF depending on load

Protections

- input-output insulation: 1500V DC (3000V AC for Vin = 200 to 400V)
- internal filter on the input
- against overload and short circuit (even constant)
- 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

Thermal and environmental performances

- storage: -40 to +100°C ; operating: -40 to +85°C
- cooling: natural convection (derating 2.5% per °C)
- temperature rise of the case, at full load: < 41°C
- maximum ambient temperature: 45°C at full power, 65°C at half power
- 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: > 4.10^5 hours, case at 25°C
- worldwide manufacturers for active parts
- assembling and final controls: *ELECDAN-CONVERTER*

Case mountable on	Dimensions (mm)	*Weight*	SKU	Connections
DIN rail & wall	225 x 120 x 74	*2260 g*	4S	screw terminal, wires ≤ 72 mm²

OPTIONS and SKU				
Vout fit with axis "10 revolutions"	AJ	other Vin and/or Vout	value
inductive load driving	L	"inversion" protection	PI
"ON / OFF" remote control	H	side clip	C 37

Range & No. sequence	Input range (Volts)	Outputs		no load consu. (mA)	SKU	Pre-tax price
		Volts	Amp			
13 - 1	9V to 36V	24	25	400	CC 24-25 / 936	
13 - 2		28	21	400	CC 28-21 / 936	
13 - 3		48	12.5	240	CC 48-12.5 / 936	
13 - 4	18V to 36V	12	50	< 300	CC 12-50 / 1836	
13 - 5		24	25		CC 24-25 / 1836	
13 - 6		28	21		CC 28-21 / 1836	
13 - 7		48	12.5		CC 48-12.5 / 1836	
13 - 8	18V to 75V	24	25	200	CC 24-25 / 1875	
13 - 9		28	21	200	CC 28-21 / 1875	
13 - 10		48	12.5	160	CC 48-12.5 / 1875	
13 - 11	36V to 75V	12	50	< 150	CC 12-50 / 3675	
13 - 12		24	25		CC 24-25 / 3675	
13 - 13		28	21		CC 28-21 / 3675	
13 - 14		48	12.5		CC 48-12.5 / 3675	
13 - 15	200V to 400V	12	50	< 60	CC 12-50 / 200400	
13 - 16		15	40		CC 15-40 / 200400	
13 - 17		24	25		CC 24-25 / 200400	
13 - 18		28	21		CC 28-21 / 200400	
13 - 19		48	12.5		CC 48-12.5 / 200400	

Case 4S
(Case 4 + symmetrical dissipator 225S)

Mounting on wall or DIN rail

❶ Wall :
- front 225 x 120: two holes ∅ 4.5 mm, vertical fixing distance: 200 mm
- side 225 x 37: two M3, vertical fixing distance: 50 mm

❷ Clip :
- front 225 x 120: clip C 225
- side 225 x 37: clip C 37