1000W isolated DC/DC converters
input range 36 to 75V and very high efficiency

ELECDAN Converter

01/07/15 (3098)

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 ≤ 40 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)
  - 36 to 75V (accidental max.: 100V / 0.1s)
  - no load consumption: ≤ 220mA at 48V
  - possible external *time-delay* fuse: 60A
  - optional "on/off" remote control
- "Vout" Output
  - 24V / 28V / 48V (≤ 60V / 900W option); accuracy: 1%
  - optional fit with embedded "10 revolutions" axis:
    - 24V output: ± 3%
    - 48V output: 0 to -10%
  - line regulation: < 4.10^{-3} of Vout
  - load regulation: ≤ 1%
  - temperature coefficient: ≤ 2.10^{-4} of Vout, per °C
  - residual ripple: ≤ 1% of Vout
  - nominal efficiency: 95% (losses ≤ 52W)
  - dynamic response: < 1 ms, with 25% load variation
  - permissive capacitive load: 1200µF to ≥15,000µF depending on load

Protections

- input-output insulation: 1500V DC. 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: -55 to +125°C ; operating: -40 to +85°C
- cooling: natural convection (derating ≈ 4% per °C)
- temperature rise of the case, at full load: ≤ 26°C
- maximum ambient temperature:
  - 60°C at full power (72°C with optional ventilation 4 m/s)
  - 72°C at half power
- vibrations, shocks, humidity: protection by epoxy resin

Standards and specifications

- marking CE / UL / C UL60950-1 / RoHS
- flammability for PA 2002: UL94HB, horizontal test
- MTBF: > $2.5x10^5$ 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*	4HRS	screw terminal, wires ≤ 40 mm²

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

Range & No. sequence	Input range (Volts)	Outputs Volts	Outputs Amp	no load consu. (mA)	SKU	Pre-tax price
14 - 1	36V to 75V	24	41	200	CC 24-41 / 3675 / 4HRS	
14 - 2		28	35		CC 28-35 / 3675 / 4HRS	
14 - 3		48	19	220	CC 48-19 / 3675 / 4HRS	
Optional output: 46V to 60V / 900W (*please contact us*)						

Case 4HRS
(Case 4HR + 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