

Canopii VAC-DC converter

Dual-output (802.3af-12V) powersupply - CA-POE-DC28

Order information

Article code: CA-POE-DC28

Description

Full-Featured Field Hardened ultra high efficiency switch mode power supply that provides excellent performance and flexibility to deliver 12 VDC and 802.3af standard PoE in streetcabinets utilized by DOCSIS networks. The power supply is specially designed to convert the VAC from the coaxial amplifier to a dual output of 12 VDC and PoE.

The powersupply has a minimal efficiency of 80% at full load and delivers a maximum of 16,8 Watt on the PoE and 12 Watt on the 12 V DC output. There is a short circuit protection on the output short ground in place that prevents the powersupply to be damaged and will auto-reset after a short circuit. Additionally it has an fuse to protect the input. The LED indicators at the front show status on the AC power, the 12 VDC and the POE output to be able to diagnose the power supply in operation.

Features

- » Efficiency: 80% min at Full Load, 25Vac ~ 65Vac Input Voltage
- » Short Circuit Protection
- » Input with Fuse Protection
- » Surge protection on data input ports
- » PoE 802.3af compliant
- » Safety Standard : UL1950, CSA 22.2 &TUV EN60950-1
- » EMC : FCC Class B , EN55022 Class B
- » LED indicators to show power in- and output status
- » Field hardened for harsh environments
- » Compact size



Front view



Back view

Specifications

1. INPUT

- 1.1 Input Voltage: 25VAC ~ 65VAC
- 1.2 Input frequency : 47~63Hz
- 1.3 Input Current : 1.51A @25VAC, 0.62A @65VAC
- 1.4 Power Factor: >0.75 (@FL)

2. OUTPUT

2.1 Output Voltage & Current:

Output	48V	12V
Max. load	0.35A	1A
Power 1	6.8W Max.	12W
Min. load	0.01A	0.01A
Load reg. %	5%	5%
Line reg. %	1%	1%
Ripple %	1%	1%
Noise %	1%	1%

Note 1: Noise bandwidth is from DC to 20Mhz. Ripple & Noise is measured by paralleling a 0.1uF metalize capacitor on the test point.

3. EFFICIENCY : 80% min at Full Load , 25Vac ~ 65Vac Input Voltage

4. PROTECTION

- 4.1 Short Circuit Protection
Output Short GND Terminal will not damage the Power Supply and will auto-Reset.
- 4.2 Input with Fuse Protection
- 4.3 Safety Standard : meet UL1950, CSA 22.2 &TUV EN60950-1.
- 4.4 EMC : meet FCC Class B , EN55022 Class B
- 4.5 PoE: 802.3af compliant
- 4.6 Over Current : 120% ~ 160% @ 25Vac ~ 65Vac Input F.L
- 4.7 Surge protection on data input ports:

Operating Voltage	Data 5V
Clamping Voltage	Data 16.5V (@I PP =5A, t p =8/20μs, I/O pin to GND)
Peak Pulse Current	20A (tp=8/20μs)
Pin Protected	All 8 pin protected
Max. Shut Capacitance	<3pF (VR = 0V, f = 1MHz, I/O pin to GND) < 1.5 pF (VR = 0V, f = 1MHz, Between I/O pins)
IEC COMPATIBILITY (EN61000-4)	IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC61000-4-4 (EFT) 40A (5/50ns) IEC61000-4-5 (Lightning) 20A (8/20μs)

5.0 INDICATORS (on front panel)

- LED1 GREEN indicates AC PWR – Ready
- LED2 GREEN indicates DC12V Output –OK
- LED3 GREEN indicates PoE Output –OK
- LED4 YELLOW indicates no PoE Output

6. GENERAL DESCRIPTION

- 6.1 Operation Temperature: -40 - +70 Degree
- 6.2 Storage Temperature: -40 - +85 Degree
- 6.3 Operation Humidity: 5% - 90%
- 6.4 Cooling: Free air cooling
- 6.5 SIZE : 46 x 125 x 102 mm(W*H*D)

7. RJ45 PINOUTS ASSIGNMENT (10M/100M/1000M)

RJ-45 Input (Data Only)			RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	BI_DA+	Data Pair A+	BI_DA+	Data Pair A+
2	BI_DA-	Data Pair A-	BI_DA-	Data Pair A-
3	BI_DB+	Data Pair B+	BI_DB+	Data Pair B+
4	BI_DC+	Data Pair C+	+Vdc + BI_DC+	power(+)+Data Pair C+
5	BI_DC-	Data Pair C-	+Vdc + BI_DC-	power(+)+Data Pair C-
6	BI_DB-	Data Pair B-	BI_DB-	Data Pair B-
7	BI_DD+	Data Pair D+	-Vdc + BI_DD+	power(-)+Data Pair D+
8	BI_DD-	Data Pair D-	-Vdc + BI_DD-	power(-)+Data Pair D

Note: the model is isolated design, the output +/- or input +/- can be shorted to ground (FG).