


**SERIES:** VOF-70B | **DESCRIPTION:** AC-DC POWER SUPPLY

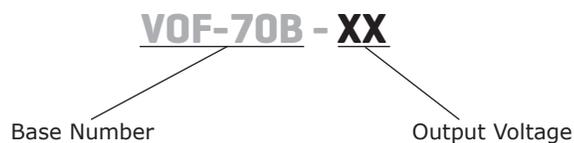
**FEATURES**

- safety Class II design
- industry standard 2" x 4" footprint
- no-load power consumption < 0.3 W
- EN 55032 Class B radiated emissions
- 5k meters high altitude operation



MODEL	output voltage	output current max	output power max	ripple and noise <sup>1</sup> max	efficiency <sup>2</sup> typ
	(Vdc)	(A)	(W)	(mVp-p)	(%)
VOF-70B-12	12	5.84	70	120	87
VOF-70B-24	24	2.92	70	240	89
VOF-70B-48	48	1.46	70	300	89

Notes: 1. Measured at output within 20 MHz BW, at rated line voltage and output load, with a 10  $\mu$ F tantalum and a 0.1  $\mu$ F ceramic capacitor across the output.  
2. At 230 Vac.

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 115 Vac at 230 Vac		1.8 0.9		A A
inrush current	at 230 Vac, cold start, 25 °C		90		A
leakage current	at 264 Vac, 63 Hz			0.25	mA
no load power consumption	at 110 Vac at 230 Vac			0.2 0.3	W W

## OUTPUT

parameter	conditions/description	min	typ	max	units
initial set point accuracy			±3		%
line regulation	at full load			±0.5	%
load regulation	at 10% to full load		±1		%
adjustability	built in trim pot		±5		%
start-up time	at 100 Vac, full load			1	s
rise time	at 100 Vac, full load		50		ms
hold-up time	at 115 Vac, full load	10			ms
switching frequency	at full load	60		85	kHz
temperature coefficient				±0.04	%/°C

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	latch off	110		130	%
over current protection	auto recovery				
short circuit protection	auto recovery				
over temperature protection	latch off				

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output		3,000		Vac
safety approvals	UL 62368-1, EN 62368-1, IEC 62368-1				
safety class	Class II				
conducted emissions	EN 55032 Class B, FCC Class B				
radiated emissions	EN 55032 Class B, FCC Class B				
input current harmonics	EN 61000-3-2 Class A				
voltage fluctuation and flicker	EN 61000-3-3				
ESD immunity	EN 61000-4-2, air: ±8 kV; contact: ±4 kV contact				
radiated field immunity	EN 61000-4-3, 3 V/m				
electrical fast transient immunity	EN 61000-4-4, ±2 kV				

Notes: 3. The power supply is considered a component which will be installed into final equipment. The final equipment still must be tested to meet the necessary EMC directives.

## SAFETY & COMPLIANCE (CONTINUED)

parameter	conditions/description	min	typ	max	units
surge immunity	EN 61000-4-5, ±2 kV diff, ±4 kV com				
conducted immunity	EN 61000-4-6, 3 Vrms				
magnetic field immunity	EN 61000-4-8, 50 Hz, 1 A/m (rms), Class A				
voltage dips, interruptions	EN 61000-4-11: voltage dips 30% reduction for 500 ms, Class A voltage dips >95% reduction for 10 ms, Class A voltage dips >95% reduction for 5000 ms, Class B				
MTBF	as per MIL-HDBK-217F, 25°C, full load	350,000			hours
RoHS	yes				

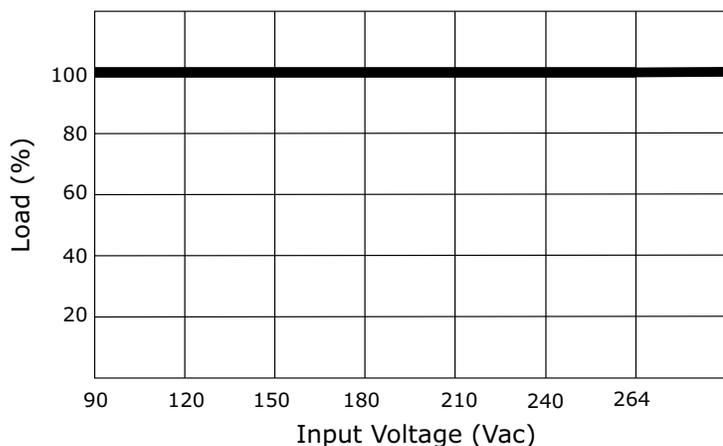
Notes: 4. The power supply is considered a component which will be installed into final equipment. The final equipment still must be tested to meet the necessary EMC directives.

## ENVIRONMENTAL

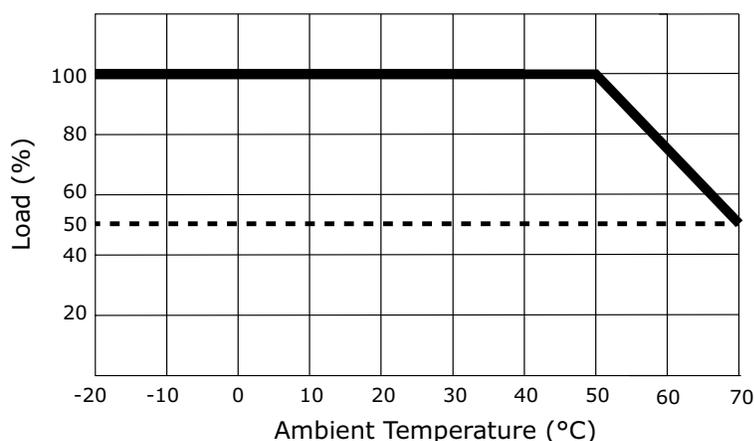
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-20		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	5		95	%
altitude				5,000	m

## DERATING CURVES

Output Load vs. Input Voltage

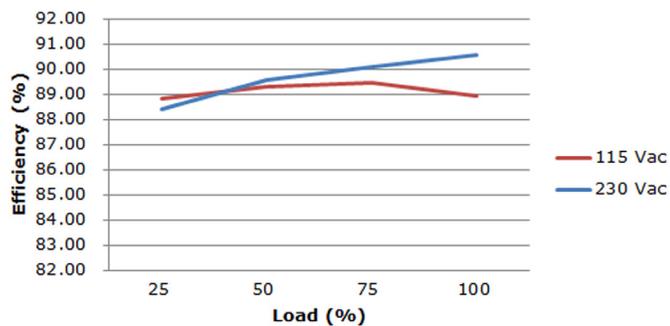


Output Load vs. Ambient Temperature

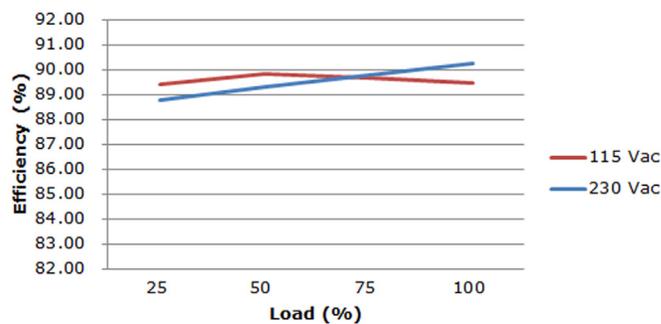


## EFFICIENCY CURVES

VOF-70B-12 Efficiency vs. Output Load (Natural Convection)

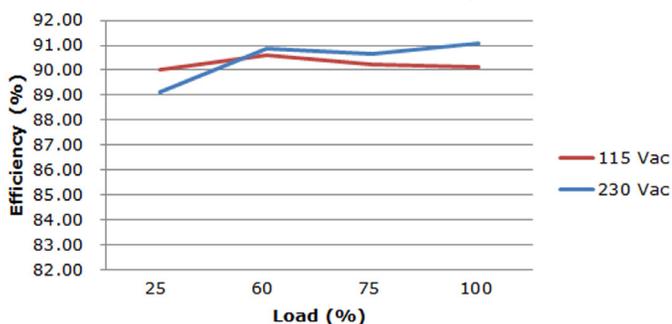


VOF-70B-24 Efficiency vs. Output Load (Natural Convection)



## EFFICIENCY CURVES (CONTINUED)

VOF-70B-48 Efficiency vs. Output Load  
(Natural Convection)



## MECHANICAL

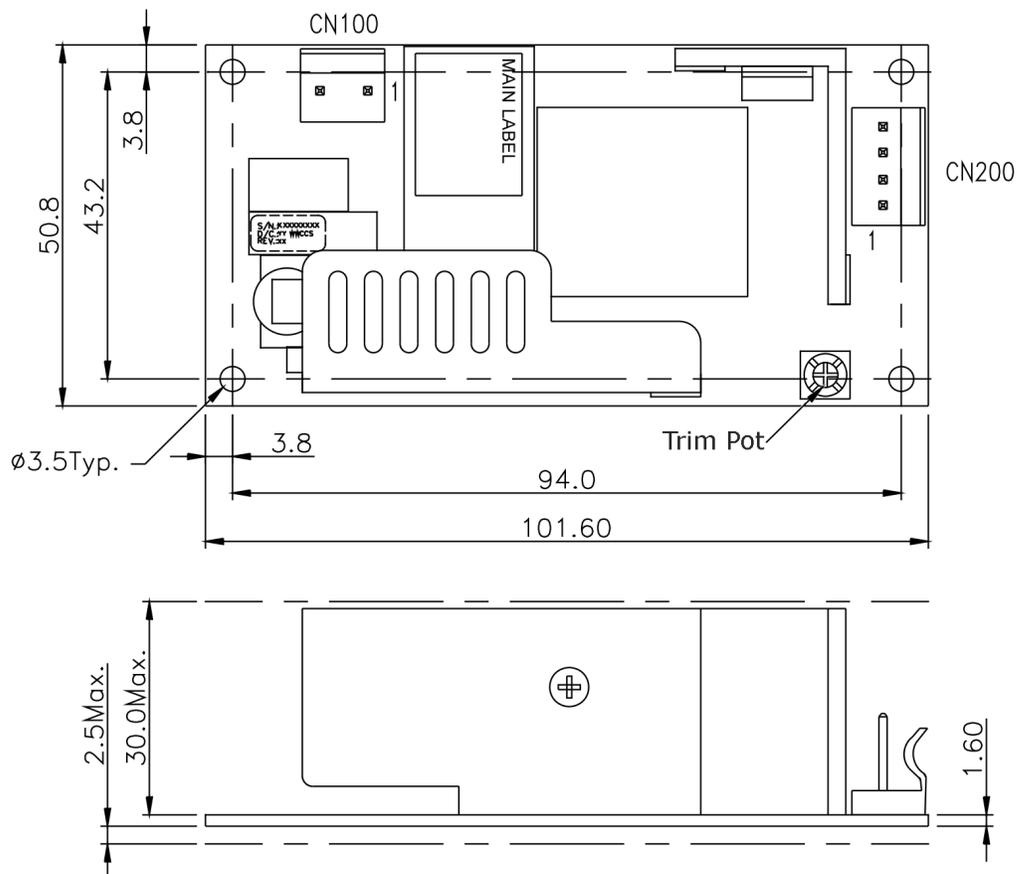
parameter	conditions/description	min	typ	max	units
dimensions	101.6 x 50.8 x 31.6 (4.0 x 2.0 x 1.24 inch)				mm
weight			152		g
cooling	natural convection				
CN100 input connector	CN100 mates with Jowle A3961H02-3P, crimp pin A3961T2P-2C, or Molex 09-50-3031, crimp pin 2478 series				
CN200 output connector	CN200 mates with Jowle A3961H02-4P, crimp pin A3961T2P-2C, or Molex 09-50-3041, crimp pin 2478 series				

## MECHANICAL DRAWING

units: mm  
tolerance:  
X≤30: ±0.25 mm  
30<X≤100: ±0.35 mm  
100<X≤300: ±0.50 mm  
holes: ±0.20 mm

PIN	Function
1	AC(L)
2	NP
3	AC(N)

PIN	Function
1	+V
2	+V
3	RTN
4	RTN



## REVISION HISTORY

---

rev.	description	date
1.0	initial release	10/16/2018

The revision history provided is for informational purposes only and is believed to be accurate.

**CUI INC**<sup>®</sup>**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)