SERIES: VOF-130 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

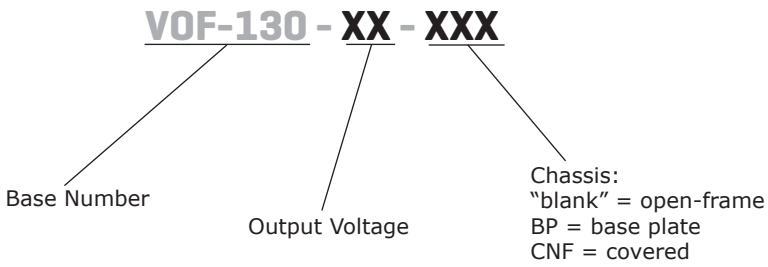
- 80 ~ 264 Vac input voltage range
- 2" x 3" open frame chassis
- 100 W power output with natural convection
- 130 W power output with forced air cooling
- active PFC
- IEC 62368-1 approved
- IEC Class I & Class II safety approved



MODEL	output voltage (Vdc)	output current[1] max (A)	output power[2] max (W)	ripple and noise[3] max (mVp-p)	efficiency[4] typ (%)
VOF-130-12	12	10.8	130	120	93
VOF-130-24	24	5.4	130	240	93
VOF-130-36	36	3.6	130	360	94
VOF-130-48	48	2.7	130	480	94

Notes:
1. Maximum output power of 130 W with 10 CFM forced air cooling, and 100 W with natural convection. See derating curves.
2. With forced air (10 CFM).
3. At full load, nominal input, 20 MHz bandwidth oscilloscope with 10 µF electrolytic and 0.1 µF ceramic capacitors.
4. At 230 Vac, 25°C, 75% load.

PART NUMBER KEY



Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
voltage		80		264	Vac
frequency		47		63	Hz
current	at 100 Vac, full load			1.8	A
inrush current	at 240 Vac, cold start			100	A
leakage current				0.1	mA

OUTPUT

parameter	conditions/description	min	typ	max	units
output capacitance	12 Vdc output model 24 Vdc output model 36 Vdc output model 48 Vdc output model			8,400 4,200 2,720 2,040	µF µF µF µF
initial set point accuracy	at full load			±2	%
line regulation	100 ~ 240 Vac, full load			±0.5	%
load regulation	10 ~ 100% load			±1	%
hold-up time	at 115 Vac, 25°C		20		ms
switching frequency			105		kHz

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	auto recovery 12 Vdc output model 24 Vdc output model 36 Vdc output model 48 Vdc output model		 13.5 30 42 54		 Vdc Vdc Vdc Vdc
over current protection	auto recovery	115	130	145	%
short circuit protection	auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output, for 1 minute input to ground, for 1 minute output to ground, for 1 minute	3,000 1,500 500			Vac Vac Vac
safety approvals	certified to 62368: IEC/EN/UL				
safety class	class I, class II				
conducted emissions	EN 55032, 47 CFR FCC Part 15 (Class I & Class II meets Class B)				
radiated emissions	EN 55032, 47 CFR FCC Part 15 (Class I Meet Class B; Class II Meet Class A)				
harmonic current	EN 61000-3-2:2014				
voltage fluctuations and flicker	EN 61000-3-3:2013				
ESD	IEC 61000-4-2:2008 Air Discharge: ±8kV, Contact Discharge: ±4kV, perf. Criteria A				
radiated immunity	IEC 61000-4-3:2010, perf. Criteria A				
EFT/burst	IEC 61000-4-4:2012, ±1kV, ±2kV, perf. Criteria A				
surge	IEC 61000-4-5:2014, L-N: ±0.5kV, ±1kV, L-E(Ground): ±0.5kV, ±1kV, ±2kV, perf. Criteria A				
conducted immunity	IEC 61000-4-6:2013				
voltage dips and interruptions	IEC 61000-4-11:2004, Dip: 30% Reduction, Dip >95% Reduction, perf. Criteria A IEC 61000-4-11:2004, >95% Reduction, perf. Criteria B				
MTBF	as per MIL-HDBK-217F at 25°C		400,000		hours
RoHS	yes				

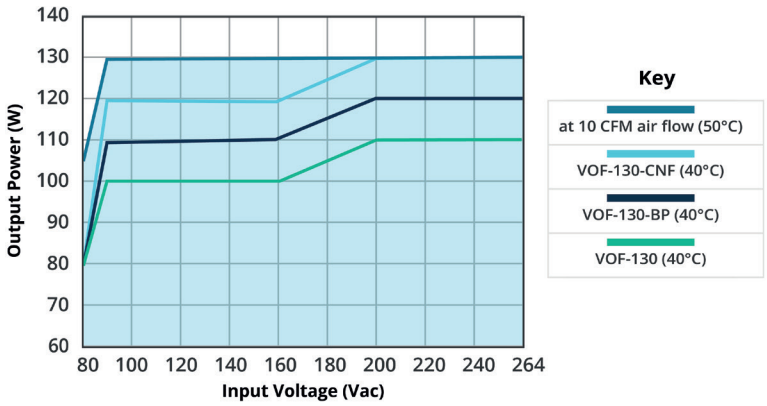
Please read our datasheet & drawing disclaimer here.

ENVIRONMENTAL

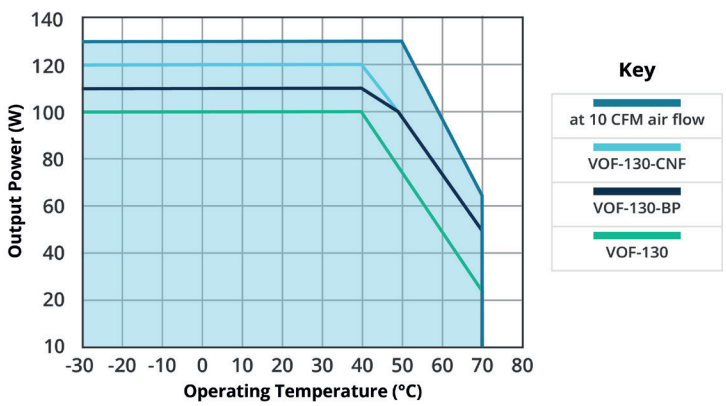
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-30		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing			93	%

DERATING CURVES

INPUT VOLTAGE DERATING CURVE

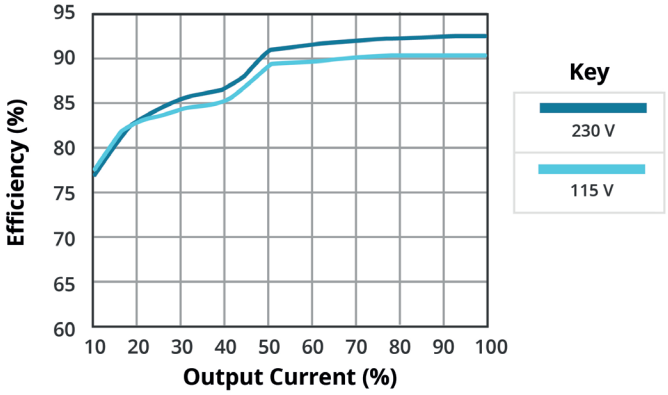


TEMPERATURE DERATING CURVE

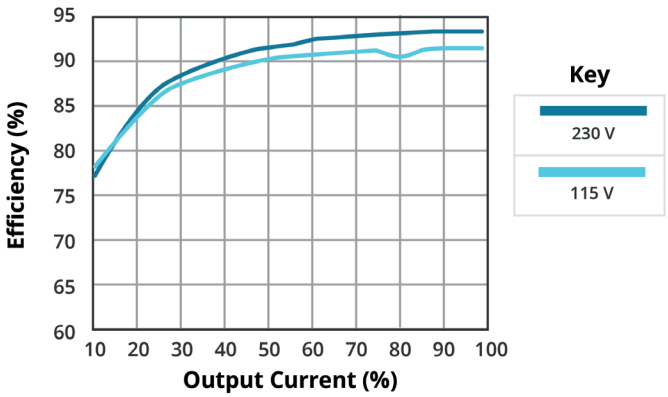


EFFICIENCY CURVES

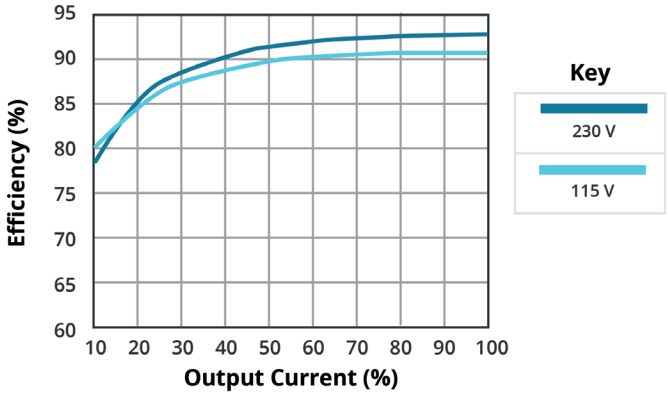
EFFICIENCY VS OUTPUT LOAD
VOF-130-12



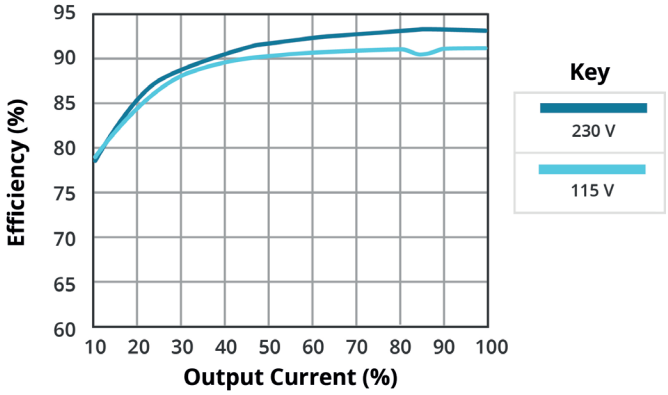
EFFICIENCY VS OUTPUT LOAD
VOF-130-24



EFFICIENCY VS OUTPUT LOAD
VOF-130-36



EFFICIENCY VS OUTPUT LOAD
VOF-130-48



Please read our datasheet & drawing disclaimer here.

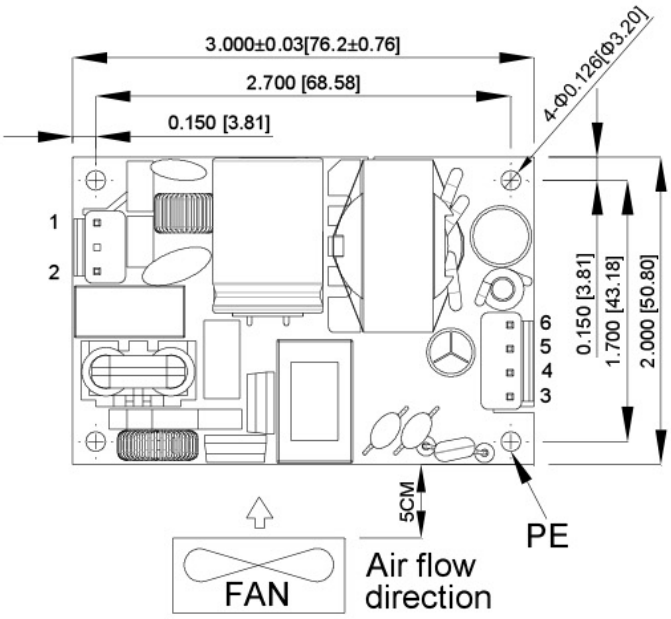
MECHANICAL

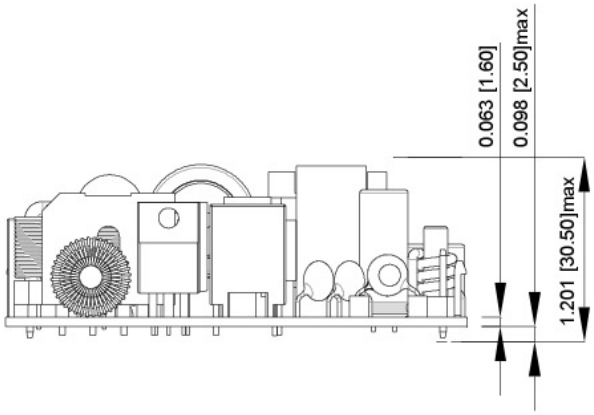
parameter	conditions/description	min	typ	max	units
dimensions	open frame models: 3.000 x 2.000 x 1.201 [76.2 x 50.8 x 30.5 mm] base plate models: 3.598 x 2.000 x 1.299 [91.4 x 50.8 x 33.0 mm] covered models: 3.598 × 2.520 × 1.358 [91.4 x 64.0 x 34.5 mm]				inches inches inches
weight	open frame models base plate models covered models		135 170 218		g g g
cooling	natural convection (no integrated fan), see derating curve 10 CFM		100 130		W W

MECHANICAL DRAWING

Open-frame
units: inch [mm]
general tolerance: ±0.02 [±0.5]

PIN-OUT	
PIN	Function
1	AC (L)
2	AC (N)
3	-Vo
4	-Vo
5	+Vo
6	+Vo



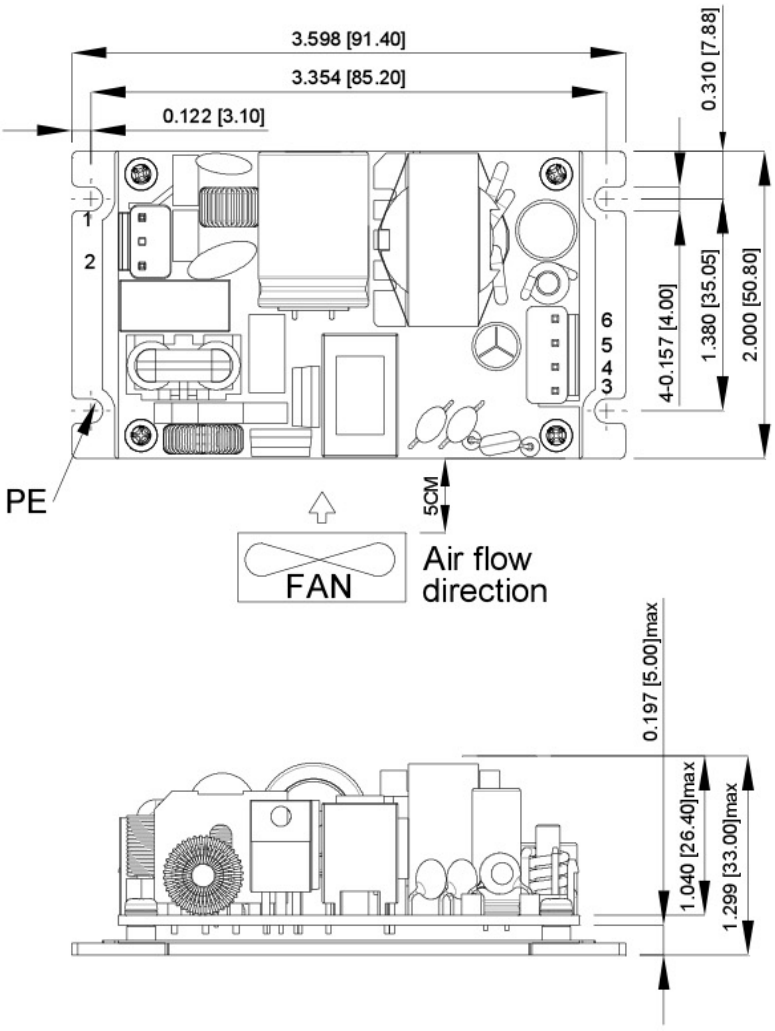


Please read our datasheet & drawing disclaimer here.

MECHANICAL DRAWING (CONTINUED)

Base plate
units: inch [mm]
general tolerance: ±0.02 [±0.5]

PIN-OUT	
PIN	Function
1	AC (L)
2	AC (N)
3	-Vo
4	-Vo
5	+Vo
6	+Vo

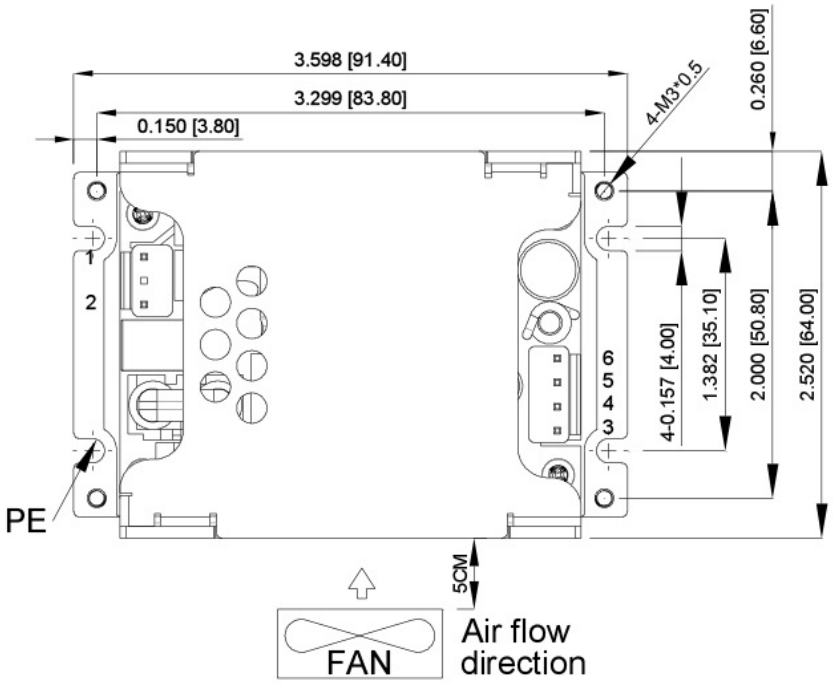


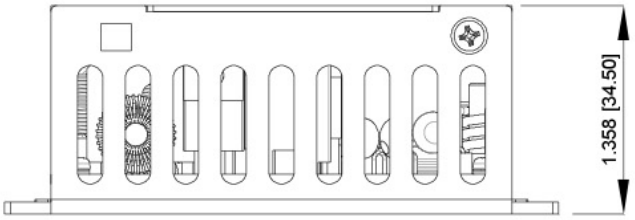
Please read our datasheet & drawing disclaimer here.

MECHANICAL DRAWING (CONTINUED)

Covered
units: inch [mm]
general tolerance: ±0.02 [±0.5]

PIN-OUT	
PIN	Function
1	AC (L)
2	AC (N)
3	-Vo
4	-Vo
5	+Vo
6	+Vo





Please read our datasheet & drawing disclaimer here.

REVISION HISTORY

rev.	description	date
1.0	initial release	11/08/2021
1.01	mechanical drawing updated	07/13/2022
1.02	frequency updated	08/05/2025

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

CUI INC
a bel group

15575 SW Sequoia Pkwy #100
Portland, OR 97224
800.275.4899

Fax 503.612.2383
Belfuse.com
powersupport@belf.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.

Please read our datasheet & drawing disclaimer here.