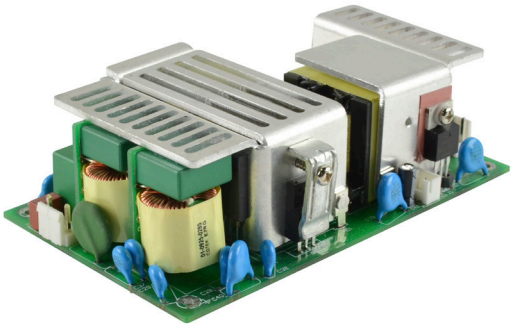
CUI INC®

SERIES: VOF-185 | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

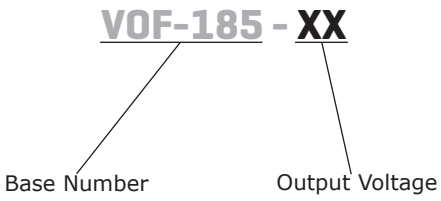
- up to 185 W continuous power
- universal input voltage range
- industry standard 3" x 5" footprint
- power factor correction
- low no load power consumption
- over voltage, over current, and short circuit protections
- output trim
- UL/cUL and TUV safety approvals
- efficiency up to 85%



MODEL	output voltage (Vdc)	output current max (A)	output power[1] max (W)	ripple and noise[2] max (mVp-p)	efficiency[3] typ (%)
VOF-185-12	12	15.42	185	120	85
VOF-185-15	15	12.33	185	150	85
VOF-185-24	24	7.71	185	240	85
VOF-185-36	36	5.14	185	360	85
VOF-185-48	48	3.85	185	480	85

Notes:
1. Maximum output power of 185 W with forced air cooling (8.48 CFM), 111 W with convection cooling.
2. At full load, nominal input, 20 MHz bandwidth oscilloscope, using a 12" twisted pair wire terminated together with a 0.1 µF and 47 µF capacitor.
3. At full load, 230 Vac input, without external fan.
4. All specifications are measured at Ta=25°C, 230 Vac input voltage, and rated output load unless otherwise specified.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		277	Vac
frequency		47		63	Hz
current	at 115 Vac, full load at 230 Vac, full load		2.3 1.2		A A
inrush current	at 230 Vac, cold start			80	A
leakage current	at 264 Vac			3.5	mA
power factor correction	at 230 Vac, full load	0.9			
no load power consumption	at 230 Vac			0.5	W
input fuse	6.3 A / 250 V time delay fuse (included)				

OUTPUT

parameter	conditions/description	min	typ	max	units
initial set point accuracy			±3		%
line regulation			±0.5		%
load regulation	from 100%~10% load		±2		%
transient response	1 kHz, 100%~10% load VOF-185-12 VOF-185-15 VOF-185-24 VOF-185-36 VOF-185-48		 1,200 1,500 2,400 3,600 4,800		 mVp-p mVp-p mVp-p mVp-p mVp-p
start-up delay time	at 115 Vac at 230 Vac		3 2.5		s s
start-up rise time	at 115 Vac, full load		50		ms
hold-up time	at 115 Vac, full load	10			ms
adjustability	built in trim pot		±5		%
switching frequency		30		300	kHz
temperature coefficient	at 0~50°C		±0.03		%/°C
fan output	12 Vdc / 100 mA				

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	clamped by TVS				
over current protection	hiccup, auto recovery	105			%
short circuit protection	hiccup, auto recovery	105			%

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output input to ground output to ground		3,000 1,500 500		Vac Vac Vac
safety approvals	UL 60950-1, EN 60950-1, IEC 60950-1				
EMI/EMC[1]	EN 55022: 2010 Class B, EN 61204-3:2000, EN 61000-6-3: 2007 +A1: 2011, EN 61000-3-2: 2006 +A2: 2009, EN 61000-3-3: 2008, EN 55024: 2010, EN 61000-6-1: 2007, ENV 50204: 1995, CE, FCC				

Notes: 1. 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.

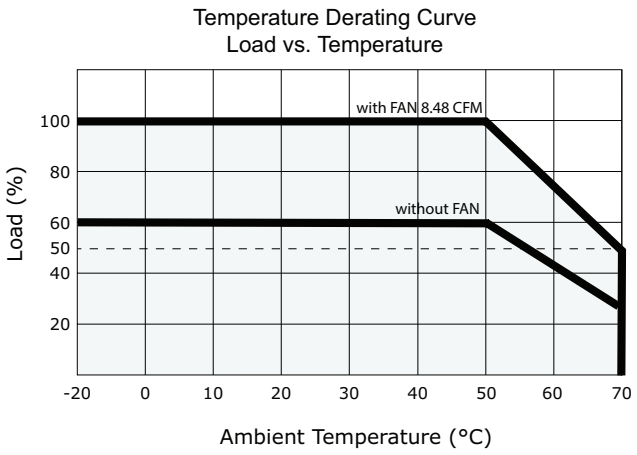
SAFETY & COMPLIANCE (CONTINUED)

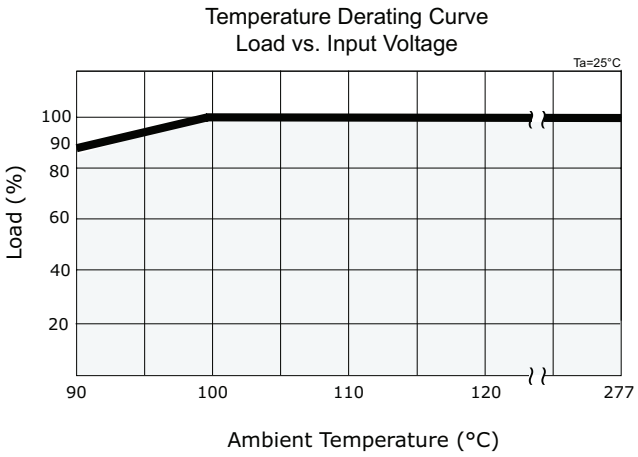
parameter	conditions/description	min	typ	max	units
class	class I				
MTBF	as per MIL-HDBK-217F	250,000			hours
RoHS	2011/65/EU				

ENVIRONMENTAL

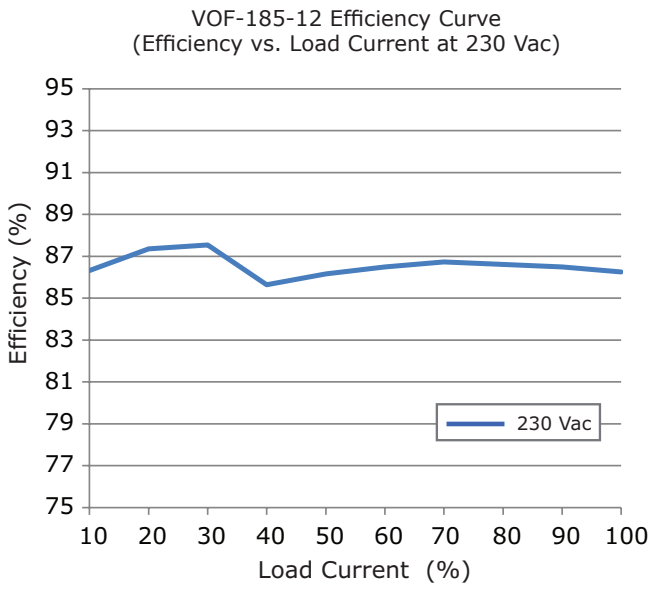
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-20		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	20		90	%
storage humidity	non-condensing	20		90	%
operating altitude			5000		m
vibration & shock	10~3000Hz, 10 minutes per cycle, for 1 hour along each of the X, Y, and Z axes		2		G

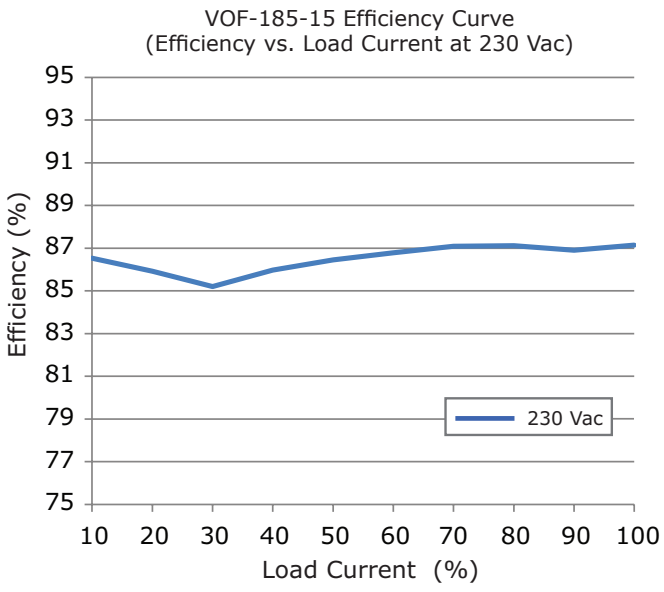
DERATING CURVES



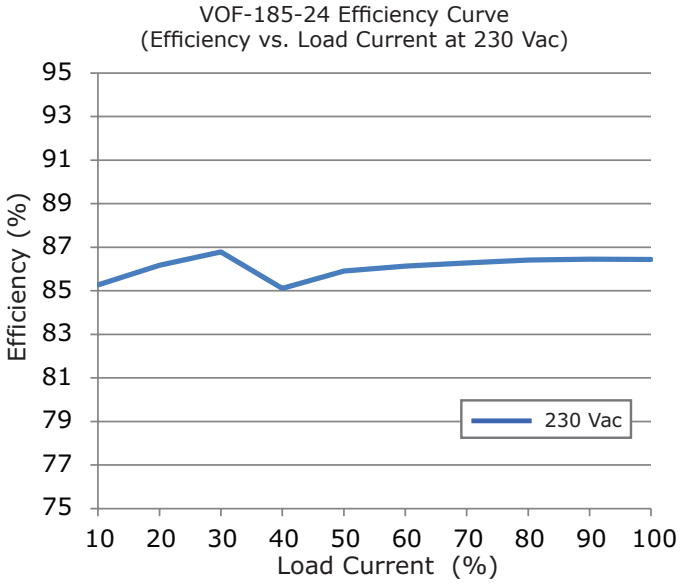


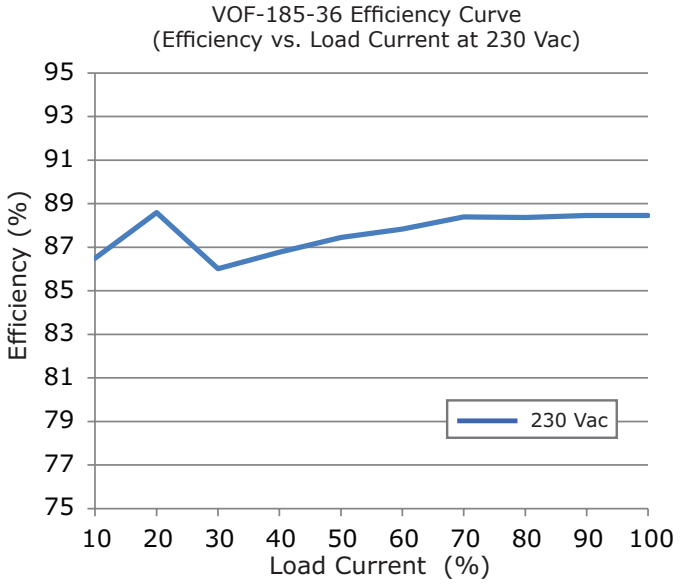
EFFICIENCY CURVES

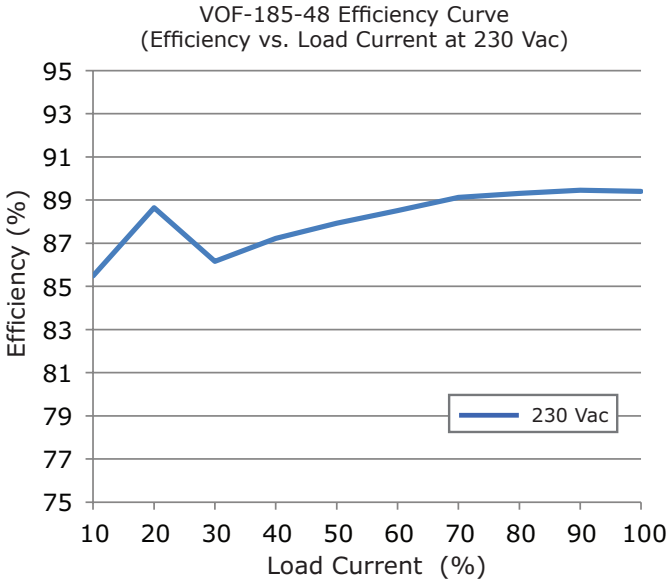




EFFICIENCY CURVES (CONTINUED)







MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	127 x 76.2 x 39.6				mm
weight			0.36		kg
cooling	external fan				
AC input	CN1 mates with Molex 09-50-7031 housing with Molex 2478 series crimp contact or equivalent				
DC output	CN2 mates with Molex 09-50-7101 housing with Molex 2478 series crimp contact or equivalent				
Auxiliary (Fan) output	Fan mates with JST XHP-2 housing with JST SXH-001T-P0.6 contact or equivalent				

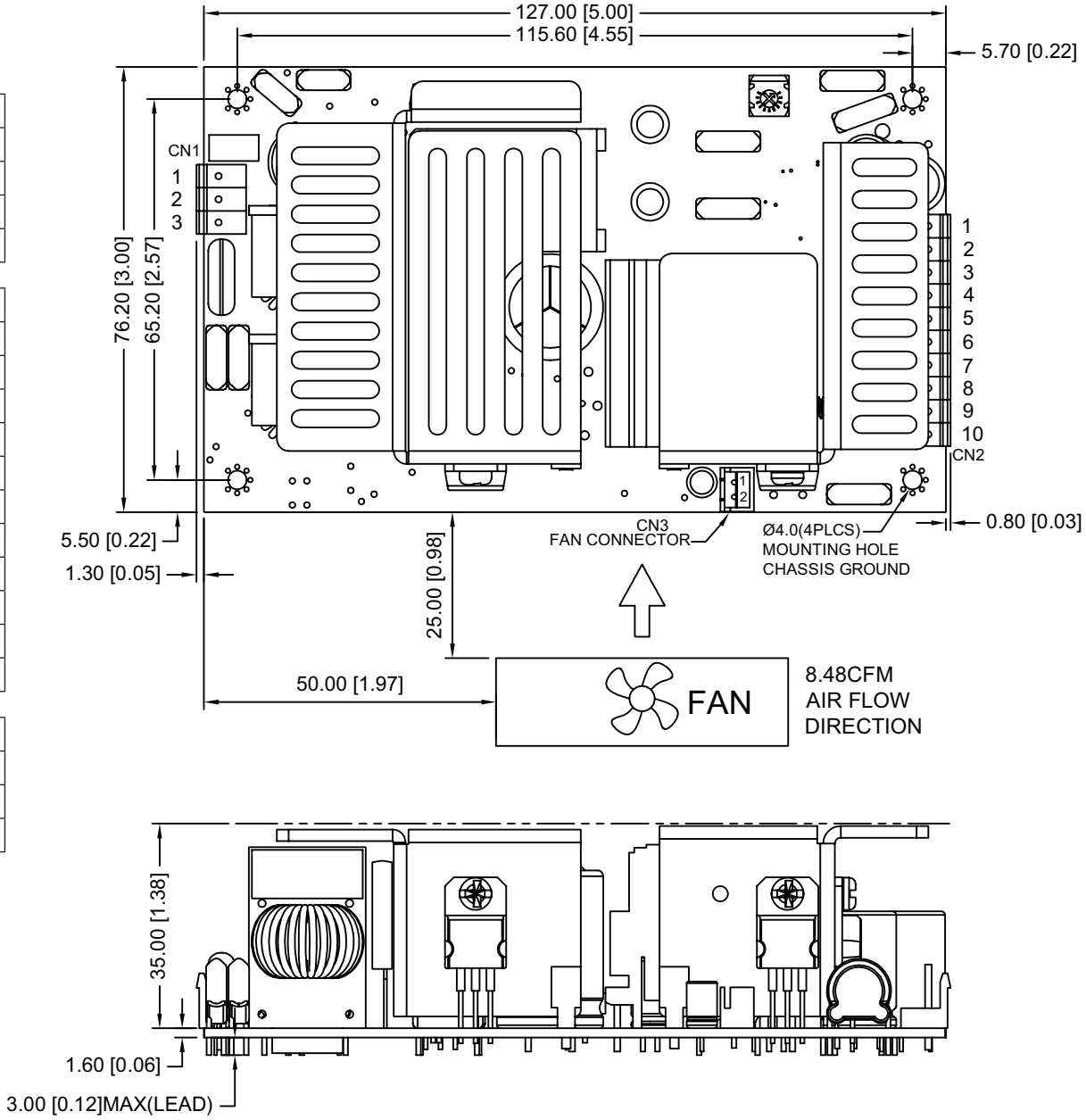
MECHANICAL DRAWING

units: mm [inch]
tolerance: ±0.3 mm

CN1	
PIN	Function
1	L
2	NP
3	N

CN2	
PIN	Function
1	+Vo
2	+Vo
3	+Vo
4	+Vo
5	+Vo
6	-Vo
7	-Vo
8	-Vo
9	-Vo
10	-Vo

CN3 (FAN)	
PIN	Function
1	+FAN
2	-FAN



REVISION HISTORY

rev.	description	date
1.0	initial release	06/27/2016
1.01	added efficiency curves	09/27/2016

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

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Данный компонент на территории Российской Федерации

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Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

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