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#### **DESCRIPTION:** AC-DC POWER SUPPLY SERIES: VMS-130

#### **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 60601-1 approved
- IEC Class I & Class II safety approved





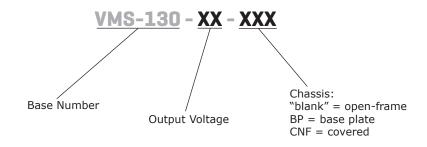
MODEL	output voltage	output current¹	output power²	ripple and noise³	efficiency <sup>4</sup>
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	typ (%)
VMS-130-12	12	10.8	130	120	93
VMS-130-24	24	5.4	130	240	93
VMS-130-36	36	3.6	130	360	94
VMS-130-48	48	2.7	130	480	94

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  $\mu$ F electrolytic and 0.1  $\mu$ F ceramic capacitors.

- 4. At 230 Vac, 25°C, 75% load.

#### **PART NUMBER KEY**



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CUI Inc | SERIES: VMS-130 | DESCRIPTION: AC-DC POWER SUPPLY

# **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		80		264	Vac
frequency		47		63	Hz
current	at 240 Vac at 100 Vac			0.8 1.5	A A
inrush current	at 240 Vac, cold start			100	Α
leakage current				0.1	mA

# **OUTPUT**

parameter	conditions/description	min	typ	max	units
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 230 Vac, 25°C	20			ms
temperature coefficient			±0.05		%/°C
switching frequency			105		kHz

# **PROTECTIONS**

parameter	conditions/description	min	typ	max	units
	auto recovery				
	12 Vdc output model			13.5	Vdc
over voltage protection	24 Vdc output model			30	Vdc
5 .	36 Vdc output model			42	Vdc
	48 Vdc output model			54	Vdc
short circuit protection	auto recovery, hiccup				

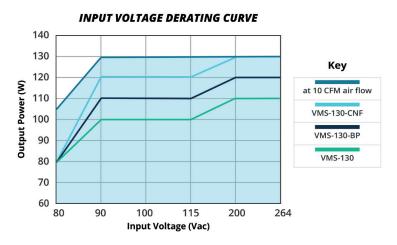
# **SAFETY & COMPLIANCE**

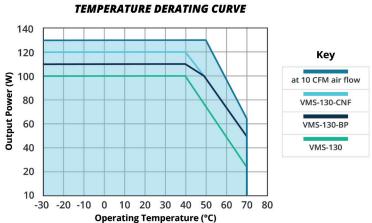
parameter	conditions/description	min	typ	max	units		
isolation voltage	input to output	4,000			Vac		
safety approvals	certified to 60601: IEC/EN/UL						
safety class	class I, class II						
conducted emissions	EN55011 Class B when test condition is Class I, C	lass II					
radiated emissions	EN55011 Class B when test condition is Class I EN55011 Class A when test condition is Class II						
harmonic current	IEC 61000-3-2						
voltage fluctuations and flicker	IEC 61000-3-3:2013						
ESD	IEC 61000-4-2						
radiated immunity	IEC 61000-4-3	EC 61000-4-3					
EFT/burst	IEC 61000-4-4	EC 61000-4-4					
surge	IEC 61000-4-5						
conducted immunity	IEC 61000-4-6	IEC 61000-4-6					
voltage dips and interruptions	IEC 61000-4-11						
MTBF	as per MIL-HDBK-217F at 25°C	400,000			hours		
RoHS	yes						

# **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**





#### **MECHANICAL**

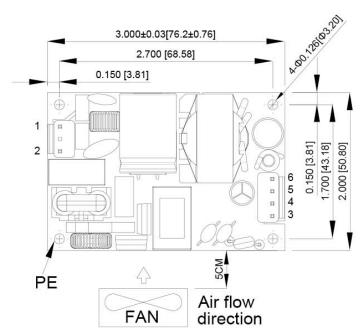
parameter	conditions/description m	in typ	max	units
dimensions	open frame models: $3.000 \times 2.000 \times 1.200$ [76.2 x 50.8 x 30.5 mm] base plate models: $3.598 \times 2.000 \times 1.299$ [91.4 x 50.8 x 33.0 mm] covered models: $3.598 \times 2.520 \times 1.358$ [91.4 x 64.0 x 34.5 mm]			inches inches inches
weight	open frame models base plate models	135 170		g g
	covered models	218		g
cooling	natural convection (no integrated fan), see derating curve	100		W
2001119	10 CFM	130		W

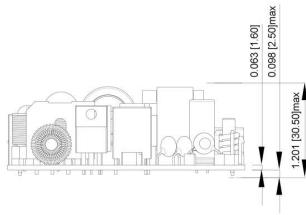
# **MECHANICAL DRAWING**

Open-frame

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

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





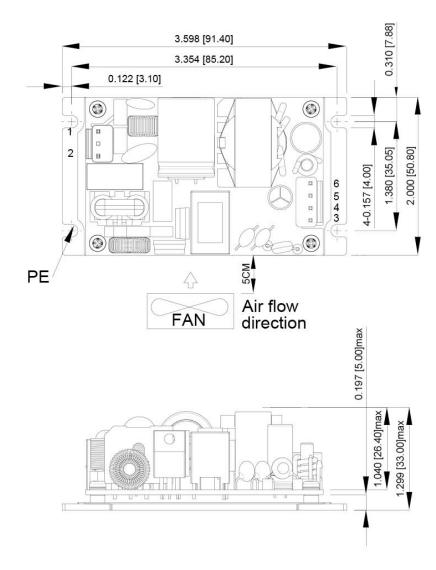
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# **MECHANICAL DRAWING (CONTINUED)**

Base plate units: inch [mm]

general tolerance: ±0.02 [±0.5]

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



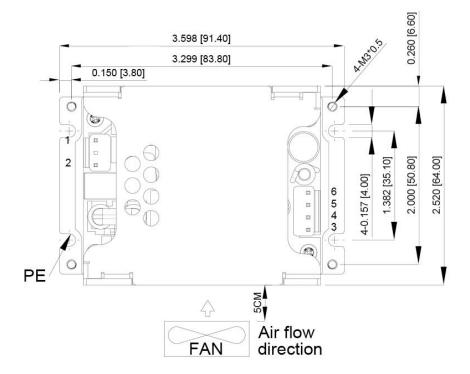
# **MECHANICAL DRAWING (CONTINUED)**

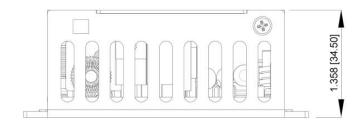
Covered

units: inch [mm]

general tolerance: ±0.02 [±0.5]

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





#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	11/09/2021

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



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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.

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