


CUI INC

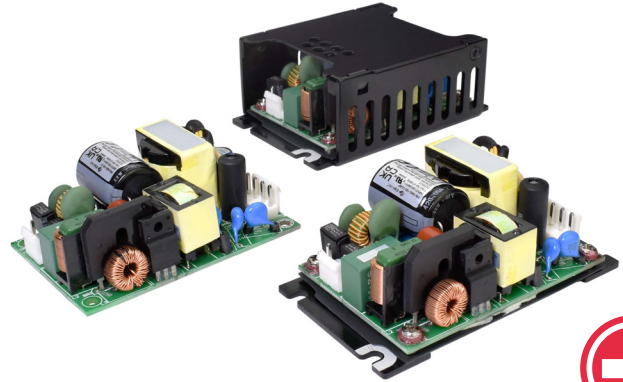
a bel group

date 05/04/2023

page 1 of 7

SERIES: VMS-130 | DESCRIPTION: AC-DC POWER SUPPLY
FEATURES

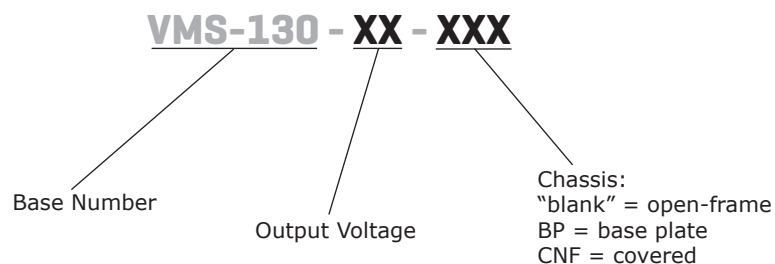
- 80 ~ 264 Vac input voltage range
- 2" x 3" open frame chassis
- 100 W power output with natural convection
- 130 W power output with forced air cooling
- active PFC
- IEC 60601-1 approved
- IEC Class I & Class II safety approved



MODEL	output voltage	output current ¹	output power ²	ripple and noise ³	efficiency ⁴
	(Vdc)	max (A)	max (W)	max (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 μ F electrolytic and 0.1 μ F ceramic capacitors.
4. At 230 Vac, 25°C, 75% load.

PART NUMBER KEY


INPUT

parameter	conditions/description	min	typ	max	units
voltage		80		264	Vac
frequency		47		63	Hz
current	at 240 Vac			0.8	A
	at 100 Vac			1.5	A
inrush current	at 240 Vac, cold start			100	A
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
over voltage protection	auto recovery				
	12 Vdc output model			13.5	Vdc
	24 Vdc output model			30	Vdc
	36 Vdc output model			42	Vdc
	48 Vdc output model			54	Vdc
short circuit protection	auto recovery, hiccup				

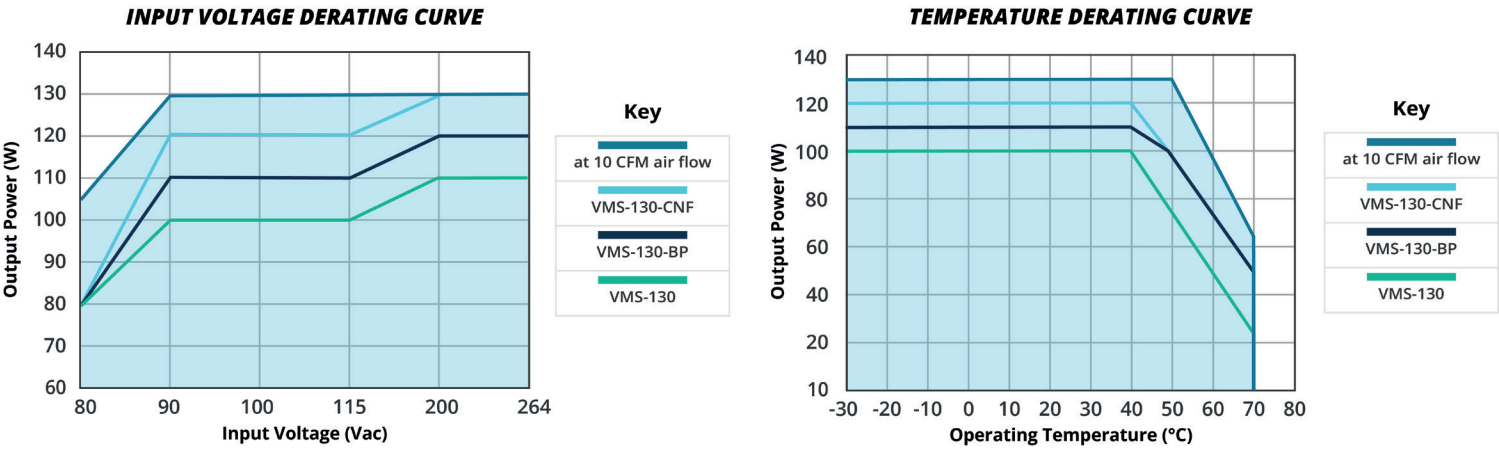
SAFETY & COMPLIANCE

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, Class 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				
EFT/burst	IEC 61000-4-4				
surge	IEC 61000-4-5				
conducted immunity	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	min	typ	max	units
dimensions	open frame models: 3.000 x 2.000 x 1.200 [76.2 x 50.8 x 30.5 mm]				inches
	base plate models: 3.598 x 2.000 x 1.299 [91.4 x 50.8 x 33.0 mm]				inches
	covered models: 3.598 x 2.520 x 1.358 [91.4 x 64.0 x 34.5 mm]				inches
weight	open frame models		135		g
	base plate models		170		g
	covered models		218		g
cooling	natural convection (no integrated fan), see derating curve		100		W
	10 CFM		130		W

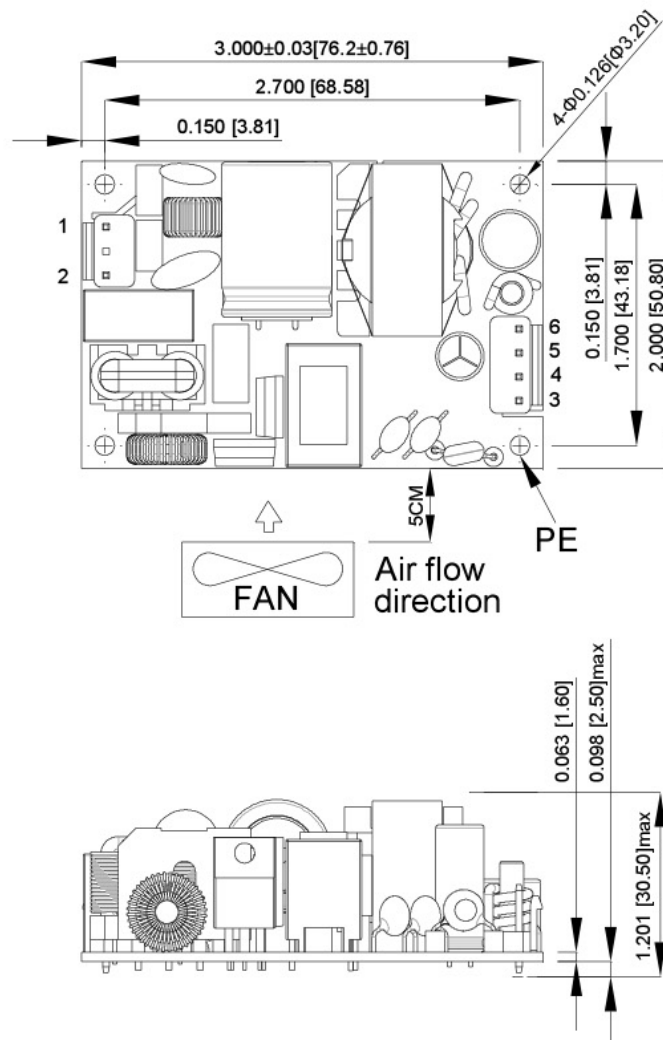
MECHANICAL DRAWING

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



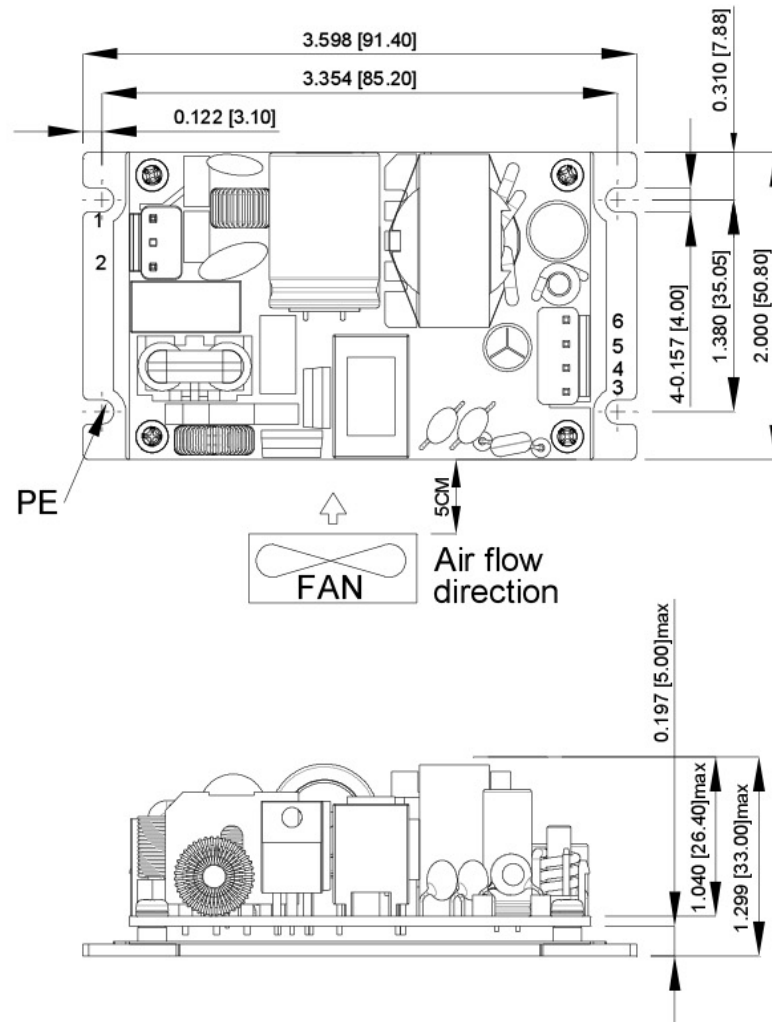
MECHANICAL DRAWING (CONTINUED)

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



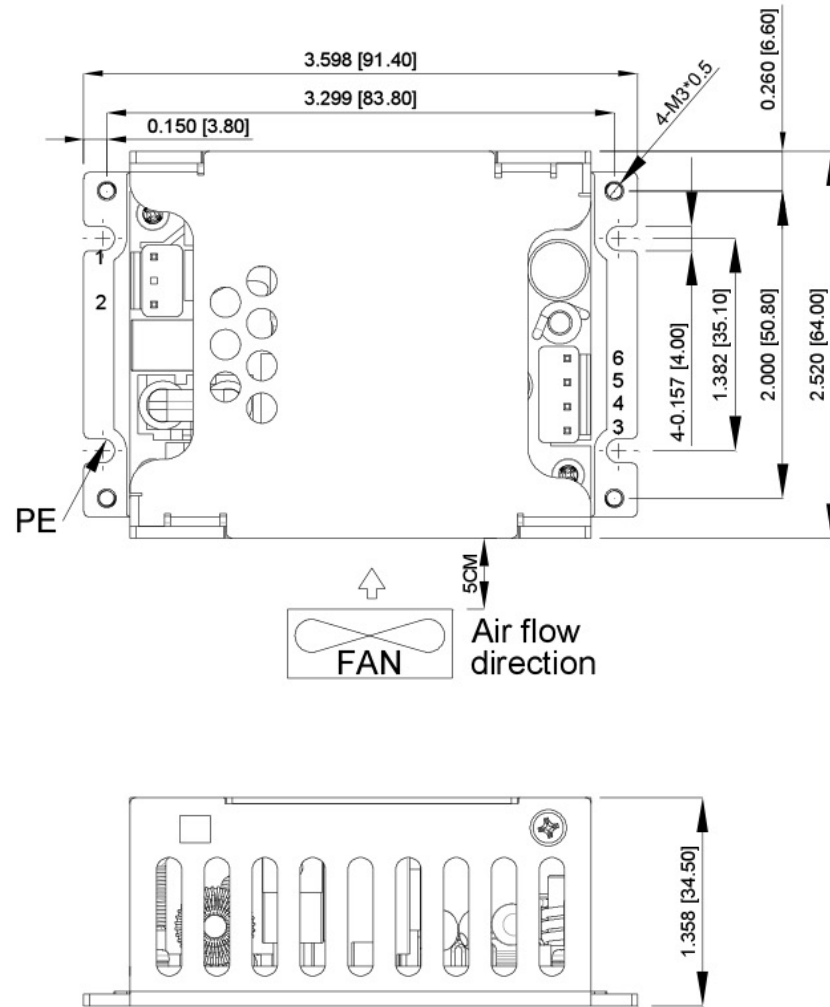
MECHANICAL DRAWING (CONTINUED)

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



REVISION HISTORY

rev.	description	date
1.0	initial release	11/09/2021
1.01	mechanical drawing updated	07/13/2022
1.02	medical icon added	05/04/2023

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



CUI INC
a bel group

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

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