

**SERIES:** VMS-81 | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

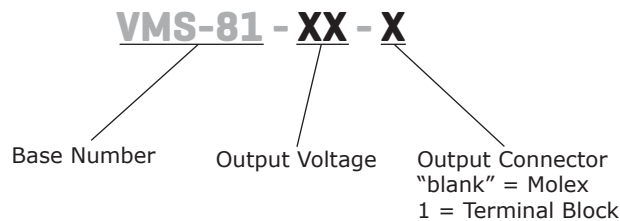
- up to 80 W continuous power
- universal input (90~260 Vac)
- single output from 5~36 V
- input to output 2MOPP
- active power factor correction
- over voltage and over current protections
- full medical safety approvals
- efficiency up to 85%



MODEL	output voltage	output current	output power	ripple and noise <sup>1</sup>	efficiency <sup>2</sup>
	(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
VMS-81-5	5	14.0	70	50	74
VMS-81-7	7	11.43	80	70	79
VMS-81-9	9	8.89	80	90	81
VMS-81-12	12	6.66	80	120	81
VMS-81-15	15	5.33	80	150	81
VMS-81-18	18	4.44	80	180	82
VMS-81-24	24	3.33	80	240	82
VMS-81-30	30	2.66	80	300	81
VMS-81-36	36	2.22	80	360	81

Notes: 1. Measured at full load, 90 Vac, 20MHz.  
2. Measured at full load, 230 Vac. Up to 85% max.

**PART NUMBER KEY**



## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		260	Vac
frequency		47		63	Hz
input current	at 100 Vac, full load at 240 Vac, full load			1.2 0.4	A A
inrush current	at 115 Vac, full load, cool start at 25 °C at 230 Vac, full load, cool start at 25 °C			28 56	A A
leakage current	at 240 Vac/60 Hz			0.1	mA
power factor correction	at 240 Vac, full load	0.95		1	
no load power consumption	at 230 Vac			0.5	W

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	full load			±1	%
load regulation	at 230 Vac			±5	%
hold-up time	at 110 Vac, full load	16			ms
start-up time	at 100 Vac, full load	0.3		2	s
temperature coefficient			±0.4		%/°C

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	recovers automatically	112		132	%
over current protection	recovers automatically	110		150	%

## SAFETY & COMPLIANCE

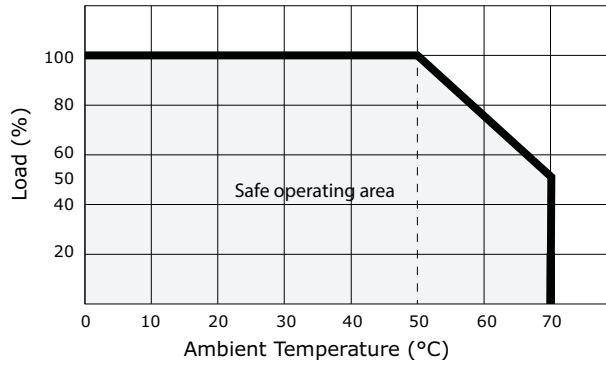
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output (for 1 minute, 10mA) input to ground (for 1 minute, 10mA)	6,653 2,121			Vdc Vdc
isolation resistance	at 500 Vdc	50			MΩ
safety approvals	IEC 60601-1, EN 60601-1, UL 60601-1				
conducted emissions	EN60601-1-2/EN55011 class B				
radiated emissions	EN60601-1-2/EN55011 class B				
harmonics	EN61000-3-2 class D				
ESD	IEC61000-4-2, contact ± 6kV/ air ± 8kV				
radiated immunity	IEC61000-4-(2, 3, 4, 5, 6, 8, 11)				
EFT/burst	IEC61000-4-4, ± 2kV				
surge	IEC61000-4-5 line to line: ± 1kV, line to earth: ± 2kV				
voltage dips & interruptions	IEC61000-3-3, IEC61000-4-11				
MTBF	MIL-HDBK-217F, at 25°C	100,000			hours
RoHS compliant	yes				

## ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		70	°C
storage temperature		-40		85	°C
operating humidity		0		95	%
storage humidity		0		95	%
operating altitude				3000	m

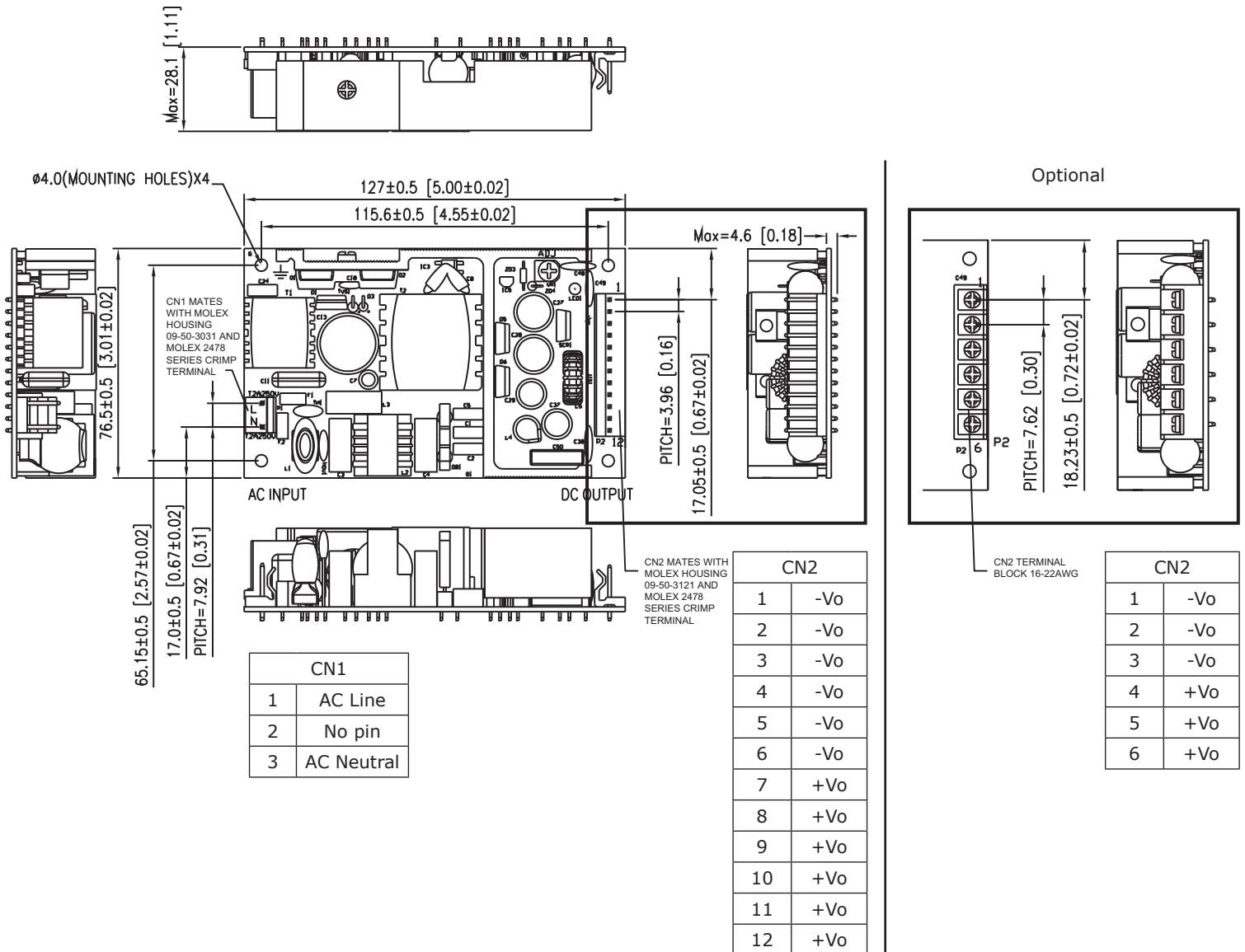
## DERATING CURVES

Temperature Derating Curve



## MECHANICAL DRAWING

units: mm[inches]



## REVISION HISTORY

---

rev.	description	date
1.0	initial release	07/19/2013

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



**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.