

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

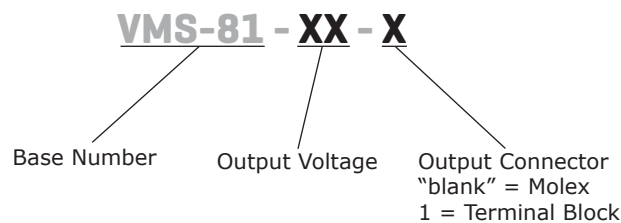
**FEATURES**

- 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**

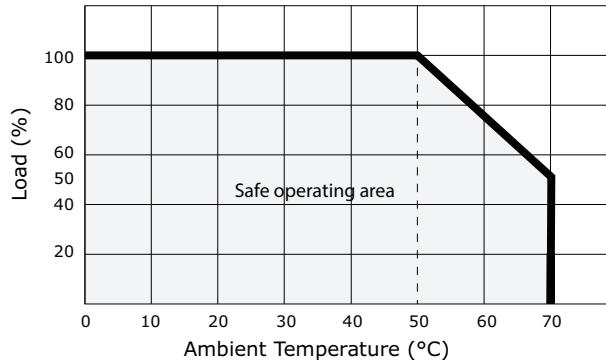
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output (for 1 minute, 10mA) input to ground (for 1 minute, 10mA)	6,653 2,121			Vdc Vdc
isolation resistance	at 500 Vdc	50			MΩ
safety approvals	IEC 60601-1, EN 60601-1, UL 60601-1				
conducted emissions	EN60601-1-2/EN55011 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

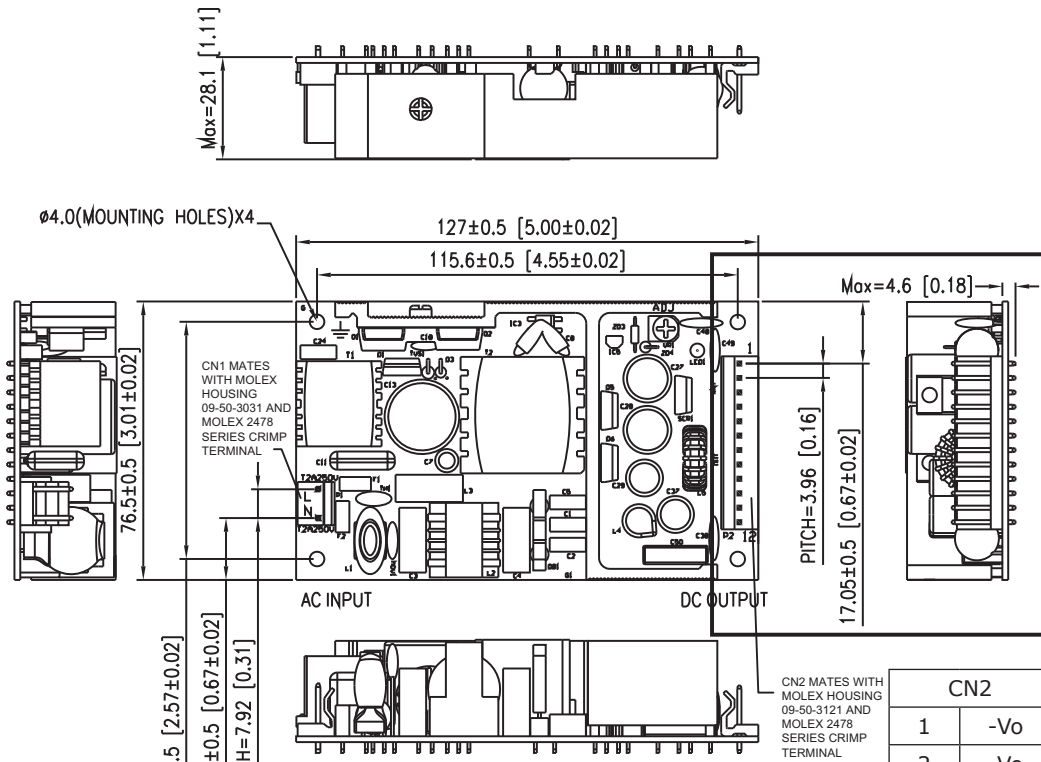
## DERATING CURVES

Temperature Derating Curve



## MECHANICAL DRAWING

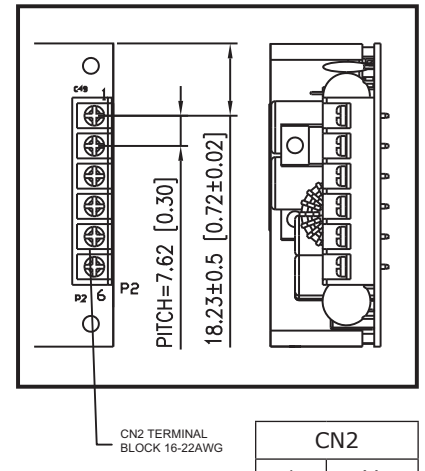
units: mm[inches]



CN1	
1	AC Line
2	No pin
3	AC Neutral

CN2	
1	-Vo
2	-Vo
3	-Vo
4	-Vo
5	-Vo
6	-Vo
7	+Vo
8	+Vo
9	+Vo
10	+Vo
11	+Vo
12	+Vo

Optional



CN2	
1	-Vo
2	-Vo
3	-Vo
4	+Vo
5	+Vo
6	+Vo

## 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.



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