

date 08/16/2012

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# SERIES: VGD-60 | DESCRIPTION: AC-DC POWER SUPPLY

#### **FEATURES**

- up to 60 W continuous power
- universal input (85~264 Vac / 120~370 Vdc)
- dual output
- overload, over voltage, and short circuit protections
- UL/cUL and Intertek 60950-1 safety approvals
- built-in EMI filter
- efficiency up to 80%







MODEL	output voltage	output current	output power	ripple and noise¹	efficiency
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	<b>typ</b> (%)
VGD-60-D512	5 12	4.8 3	60	80 120	79
VGD-60-D524	5 24	4.8 1.5	60	80 240	80

Notes: 1. Ripple & noise are measured at 20 MHz BW with 47  $\mu F$  aluminum electrolytic capacitor and 0.1  $\mu F$  ceramic capacitor on the output.

#### **PART NUMBER KEY**



## **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		85		264	Vac
		120		370	Vdc
frequency		47		63	Hz
input current	115 Vac			1.5	А
input current	230 Vac			0.7	Α
inguch current	115 Vac, full load, cold start			30	А
inrush current	230 Vac, full load, cold start			60	Α

# **OUTPUT**

parameter	conditions/description	min	typ	max	units
line regulation			±1		%
load regulation			±5		%
temperature coefficient			±0.03		%/°C
hold-up time	115 Vac, full load 230 Vac, full load		10 50		ms ms
adjustability	adjustable with built-in trim pot <sup>1</sup>		±5		%

1. Adjustment of 5 V output only.

# **PROTECTIONS**

parameter	conditions/description	min	typ	max	units
over voltage protection	shut down and latch off, recover after restart.			7	V
overload protection	hiccup mode, automatically recovers	110		160	%
short circuit protection	continuous, automatically recovers				

## **SAFETY & COMPLIANCE**

conditions/description	min	typ	max	units
input to output		3,000		Vac
input to case		1,500		Vac
output to case		500		Vac
input to output at 500 Vdc @ 25°C	100			ΜΩ
UL 60950-1, Intertek EN 60950-1				
EN 55022 (CISPR22) Class B, EN 61000 -3-2	2,-3,-4-2,3,4,5,6,8,11	; EN 55024		
at 240 Vac			3.5	mA
yes				
MIL-HDBK-217F(25°C)	300,000			hrs
	input to output input to case output to case input to output at 500 Vdc @ 25°C  UL 60950-1, Intertek EN 60950-1  EN 55022 (CISPR22) Class B, EN 61000 -3-2 at 240 Vac yes	input to output input to case output to case output to case output to case input to output at 500 Vdc @ 25°C 100  UL 60950-1, Intertek EN 60950-1  EN 55022 (CISPR22) Class B, EN 61000 -3-2,-3,-4-2,3,4,5,6,8,11 at 240 Vac  yes	input to output input to case 1,500 output to case 1,500 output to case 500 input to output at 500 Vdc @ 25°C 100  UL 60950-1, Intertek EN 60950-1  EN 55022 (CISPR22) Class B, EN 61000 -3-2,-3,-4-2,3,4,5,6,8,11; EN 55024 at 240 Vac yes	input to output input to case 1,500 output to case 500 input to output at 500 Vdc @ 25°C 100  UL 60950-1, Intertek EN 60950-1  EN 55022 (CISPR22) Class B, EN 61000 -3-2,-3,-4-2,3,4,5,6,8,11; EN 55024 at 240 Vac 3.5  yes

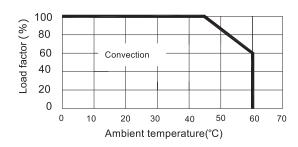
## **ENVIRONMENTAL**

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-10		60	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	20		90	%
storage humidity		10		95	%

## **MECHANICAL**

parameter	conditions/description	min	typ	max	units
dimensions	5.1 x 3.9 x 1.5 (129 x 98 x 38 mm)				inch
cooling method	free air convection (see derating curve below)				
weight			433		g

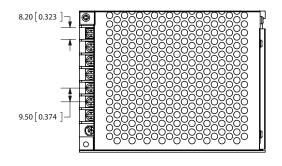
## **DERATING CURVES**

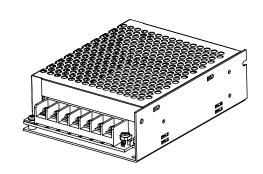


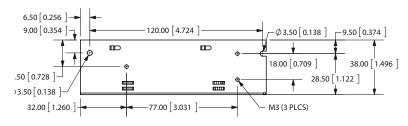
## **MECHANICAL DRAWING**

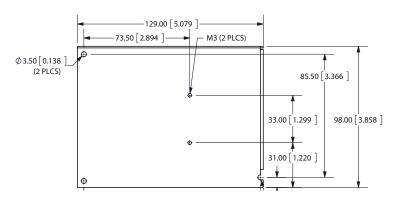
units mm[inches] tolerance:

±0.3mm unless otherwise specified









PIN	PIN CONNECTIONS		
Pin	Function		
1	ac line		
2	ac neutral		
3	FG <del>↓</del>		
4	COM		
5	+V2		
6	COM		
7	+V1		

#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	10/26/2011
1.01	updated capacitor values for ripple measurements	04/20/2012
1.02	V-Infinity branding removed	08/21/2012

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.

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