

date 01/15/2014

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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		•		efficiency
	(Vdc)	min (A)	max (A)	max (W)	<b>max</b> (mVp-p)	<b>typ</b> (%)
VGD-60-D512	5 12	0.3 0.3	6 4	60	80 120	79
VGD-60-D524	5 24	0.3 0.3	6 2.2	60	80 240	80

Notes:

#### **PART NUMBER KEY**



<sup>1.</sup> Maximum total combined power. 2. 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.

## **INPUT**

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

## **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		%

Note: 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**

parameter	conditions/description	min	typ	max	units
	input to output		3,000		Vac
isolation voltage	input to case		1,500		Vac
	output to case		500		Vac
isolation resistance	input to output at 500 Vdc @ 25°C	100			ΜΩ
safety approvals	UL 60950-1, Intertek EN 60950-1				
EMI/EMC	EN 55022 (CISPR22) Class B, EN 61000 -3-3	2,-3,-4-2,3,4,5,6,8,1	L; EN 55024		
leakage current	at 240 Vac			3.5	mA
MTBF	MIL-HDBK-217F(25°C)	300,000			hrs
RoHS	2011/65/EU				

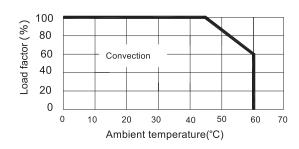
## **ENVIRONMENTAL**

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	129 x 98 x 38 (5.1 x 3.9 x 1.5 inch)				mm
cooling method	free air convection (see derating curve below)				
weight			433		g

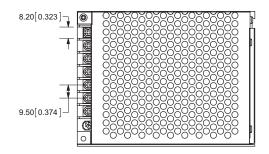
#### **DERATING CURVES**

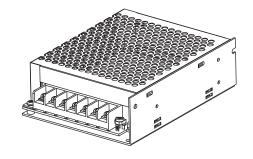


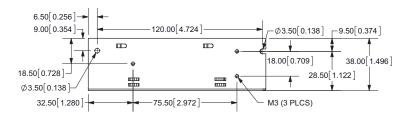
## **MECHANICAL DRAWING**

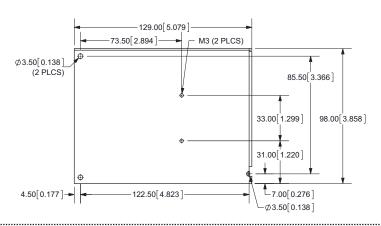
units mm[inches] tolerance:

±0.3mm unless otherwise specified









PIN CONNECTIONS				
Pin	Function			
1	ac line			
2	ac neutral			
3	FG ≟			
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
1.03	added minimum current requirements	10/29/2013
1.04	updated drawing	01/15/2014

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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