

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 (Vdc)	output current		output power ¹ max (W)	ripple and noise ² max (mVp-p)	efficiency typ (%)
		min (A)	max (A)			
VGD-60-D512	5	0.3	6	60	80	79
	12	0.3	4		120	
VGD-60-D524	5	0.3	6	60	80	80
	24	0.3	2.2		240	

Notes: 1. Maximum total combined power.
2. Ripple & noise are measured at 20 MHz BW with 47 μ F aluminum electrolytic capacitor and 0.1 μ 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	A
	230 Vac			0.7	A
inrush current	115 Vac, full load, cold start			30	A
	230 Vac, full load, cold start			60	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		10		ms
	230 Vac, full load		50		ms
adjustability	adjustable with built-in trim pot ¹		±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
isolation voltage	input to output		3,000		Vac
	input to case		1,500		Vac
	output to case		500		Vac
isolation resistance	input to output at 500 Vdc @ 25°C	100			MΩ
safety approvals	UL 60950-1, Intertek EN 60950-1				
EMI/EMC	EN 55022 (CISPR22) Class B, EN 61000 -3-2,-3,-4-2,3,4,5,6,8,11; EN 55024				
leakage current	at 240 Vac			3.5	mA
MTBF	MIL-HDBK-217F(25°C)	300,000			hrs
RoHS	2011/65/EU				

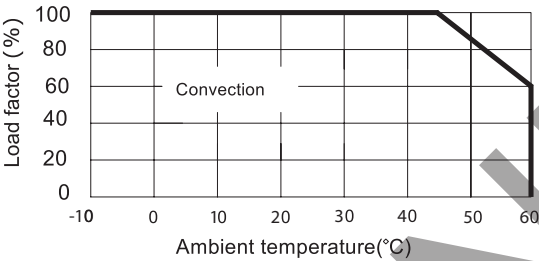
ENVIRONMENTAL

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

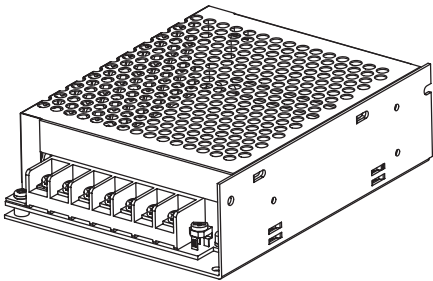
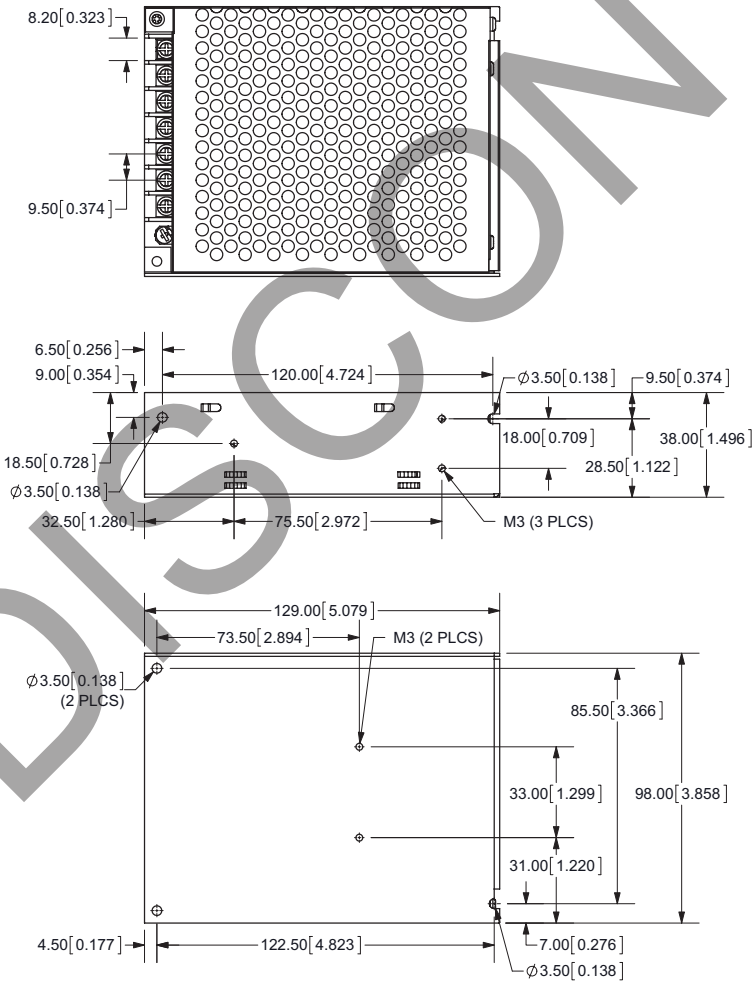
parameter	conditions/description	min	typ	max	units
dimensions	129 x 98 x 38 (5.1 x 3.9 x 1.5 inch)				mm
cooling method	free air convection (see derating curve below)				
weight			433		g

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 $\perp$
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
1.05	updated datasheet	07/10/2018

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



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