# mail

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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# SERIES: VGS-100 | DESCRIPTION: AC-DC POWER SUPPLY

#### FEATURES

- up to 110 W continuous power
- compact footprint
- universal input (88~264 Vac / 125~373 Vdc)
- single output from 3.3 to 48 V
- over voltage, over load, and short circuit protections
- + UL/cUL and TUV safety approvals
- · long life electrolytic capacitors
- no load power consumption < 0.5 W
- efficiency 89%



MODEL	output voltage	output current	output power	ripple and noise	efficiency
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	(%)
VGS-100-3.3	3.3	20	66	100	70
VGS-100-5	5	16	80	100	80
VGS-100-12	12	8.5	102	120	86
VGS-100-15	15	7	105	120	88
VGS-100-24	24	4.5	108	120	88
VGS-100-48	48	2.3	110	200	89

#### **PART NUMBER KEY**

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#### INPUT

parameter	conditions/description	min	nom	max	units
voltage range		88 125		264 373	Vac Vdc
frequency range		50		60	Hz
current	at 115 Vac, cold start at 230 Vac, cold start			2.5 1.4	A A
inrush current	at 230 Vac, full load, cold start			40	А

#### **OUTPUT**

parameter	conditions/description	min	nom	max	units
voltage adjust			±10		
voltage tolerance	3.3 V models 5 V models all other models		± 3 ± 2 ± 1		% % %
line regulation	low line to high line		±0.5		%
load regulation	3.3 V models 5 V models all other models		± 2.0 ± 1.0 ± 0.5		% % %
start-up time	at 115 Vac, cold start at 230 Vac, cold start		1.0 0.8		S S
rise time	at 115 Vac, cold start at 230 Vac, cold start		65 50		m s m s
hold-up time	at 115 Vac, cold start at 230 Vac, cold start	10 32			m s m s

### SAFETY & COMPLIANCE

parameter	conditions/description	min	nom	max	units
	input to output:	4,242			Vdc
isolation voltage	input to case:	2,121			Vdc
	output to case:	707			Vdc
safety approvals	UL 60950-1 / TUV EN 60950-1				
EMI/EMC	EN 55022 : 1998+A1 : 2000+A2 : 2003 Class B 3-3 : 1995+A1 : 2001, EN 61204-3 : 2000 EN 5 criteria A	9, EN 61000-3-2 60204 1998+A1	2000+ A2 2001+ A2	: 2005 Class A : 2003 light inc	, EN 61000- lustry level,
leakage current	measured per IEC 60950-1, paragraph 5.1, test voltage of 240 Vac/60 Hz			2	mA
RoHS compliant	yes				
MTBF	at 230 Vac, MIL-HDBK-217F 25 °C ambient	620,300			hrs

# **ENVIRONMENTAL**

parameter	conditions/description	min	nom	max	units
operating temperature	see derating curve	-20		70	°C
storage temperature	see derating curve	-40		85	°C
relative humidity	non-condensing operating	20		90	%
temperature coefficient	$(0 \sim 50^{\circ} C)$		0.3		%/°C
vibration	(10 ~ 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

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#### PROTECTIONS

parameter	conditions/description	min	nom	max	units
over load	Hiccup mode, auto recovery			110	%
over voltage	latch off mode	115		150	%
short circuit	continuous				

# **DERATING CURVES**

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Load vs. Temp



Load vs. Input Voltage

#### **MECHANICAL DRAWING**

Note:

terminal block screws #6-32 (7 PLCS)

Tolerance: ±0.3mm unless otherwise





#### **REVISION HISTORY**

rev.	description	date	
1.0	initial release	08/12/2011	
1.01	V-Infinity branding removed	08/22/2012	

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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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.