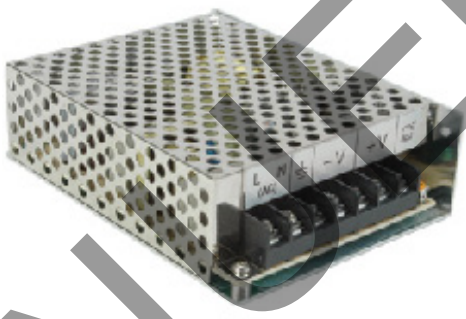
CUI INC®

SERIES: VGS-75 | DESCRIPTION: AC-DC POWER SUPPLY

DISCONTINUED

FEATURES

- up to 76.8 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
- operation high temperature up to 70°C
- long life electrolytic capacitors
- no load power consumption <0.5 W
- efficiency up to 90%



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise max (mVp-p)	efficiency (%)
VGS-75-3.3	3.3	15	49.5	150	79
VGS-75-5	5	15	75	150	83
VGS-75-12	12	6	72	150	87
VGS-75-15	15	5	75	150	87
VGS-75-24	24	3.2	76.8	150	88
VGS-75-48	48	1.6	76.8	200	90

PART NUMBER KEY

VGS-75 - XX

Base Number — Output Voltage

INPUT

parameter	conditions/description	min	typ	max	units
voltage range	withstand 300 Vac surge for 5 seconds without damage	88 125		264 373	Vac Vdc
frequency range		50		60	Hz
current	at 115 Vac, cold start at 230 Vac, cold start			2 1	A A
inrush current	at 230 Vac, full load, cold start			40	A
leakage current	at 230 Vac			2	mA

OUTPUT

parameter	conditions/description	min	typ	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	from 0% to full load 3.3 V models 5 V models all other models		 ±3.0 ±2.0 ±0.5		 % % %
rise time	at 115/230 Vac, full load		80		ms
hold-up time	at 115 Vac, cold start at 230 Vac, cold start	10 32			ms ms

PROTECTIONS

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

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output: input to frame ground: output to frame ground:	4,242 2,121 707			Vdc Vdc Vdc
insulation resistance	input to output, input to frame ground, output to frame ground at 500 Vdc	100			MΩ
safety approvals	UL 60950-1 / TUV EN 60950-1				
EMI/EMC	EN 55022: 1998+A1 : 2000+A2 : 2003 Class B, EN 61000-3-2 : 2000+A2 : 2005 Class A, EN 61000-3-3 : 1995+A1 : 2001, EN 61204-3 : 2000 EN 50204 1998+A1 : 2001+A2 : 2003 light industry level, criteria A				
RoHS compliant	2011/65/EU				
MTBF	as per MIL-HDBK-217F, 25°C	351,000			hrs

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-25		70	°C
storage temperature	see derating curve	-40		85	°C
operating humidity	non-condensing	20		90	%

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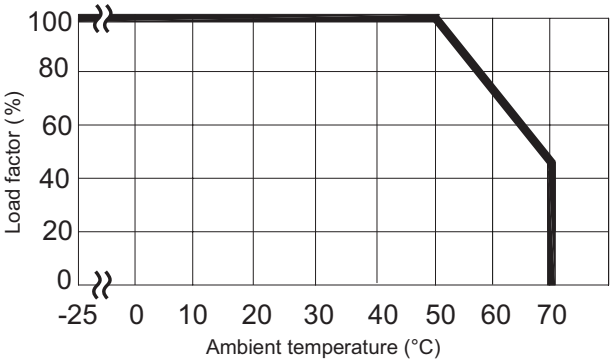
ENVIRONMENTAL (CONTINUED)

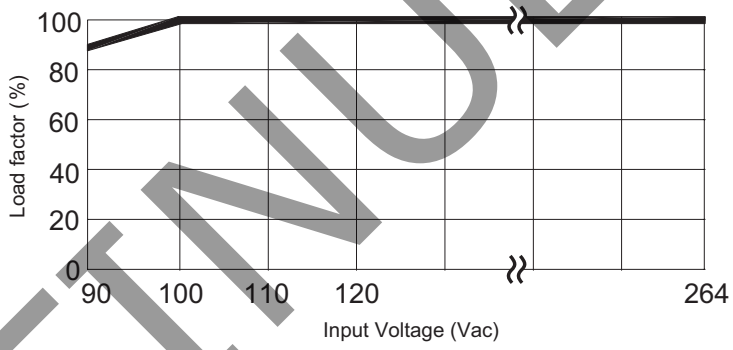
parameter	conditions/description	min	typ	max	units
storage humidity	non-condensing	10		95	%
temperature coefficient	(0 ~ 50°C)		±0.3		%/°C
vibration	(10 ~ 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

DERATING CURVES

Load vs. Temperature



Load vs. Input Voltage



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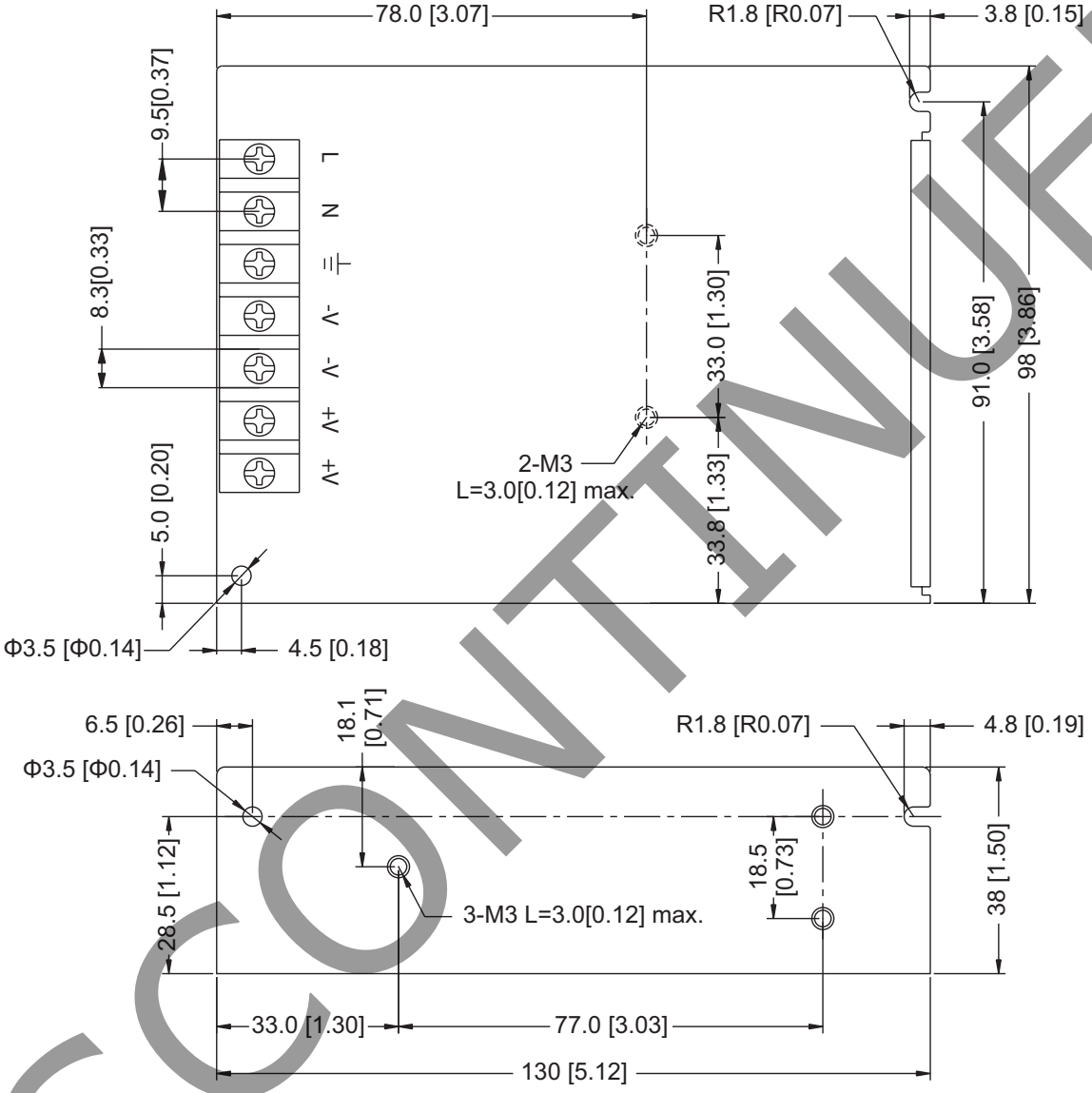
MECHANICAL DRAWING

units: mm [inches]



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REVISION HISTORY

rev.	description	date
1.0	initial release	08/12/2011
1.01	V-Infinity branding removed	08/17/2012
1.02	updated datasheet	06/07/2016

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.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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.