CUI INC®

SERIES: VDRS-10 | **DESCRIPTION:** AC-DC DIN RAIL

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FEATURES

- up to 10 W continuous power
- DIN Rail power supplies
- universal input (88-264 Vac / 124-370 Vdc)
- single output from 12 to 24 V
- over voltage, over load, over temperature, and short circuit protections
- UL1310, UL 508, and TUV safety approvals
- long life electrolytic capacitors
- efficiency 81%



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency (%)
VDRS-10-12	12	0.84	10	100	81
VDRS-10-15	15	0.67	10	100	81
VDRS-10-24	24	0.42	10	120	81

Note:
1. at full load, 230 Vac input, measured at 20MHz bandwidth with a 47 µF and 0.1 µF parallel cap on the output

PART NUMBER KEY

VDRS - 10 - XX

Base Number

Output Voltage

INPUT

parameter	conditions/description	min	typ	max	units
voltage		88 124		264 370	Vac Vdc
frequency		47		63	Hz
current	115 Vac 230 Vac			0.23 0.17	A A
inrush current	115 Vac 230 Vac			15 30	A A

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation				±1	%
load regulation				±1	%
temperature coefficient	(0 ~ 50°C)		±0.03		%/°C
hold-up time	at 115 Vac, cold start at 230 Vac, cold start	16 32			ms ms
adjustability	adjustable with built-in trim pot			±10	%

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	latch-off mode	115		150	%
over load protection	constant current limiting, automatically recovers after fault condition is removed	102			%
short circuit protection	output shut down and auto restart				

SAFETY & COMPLIANCE

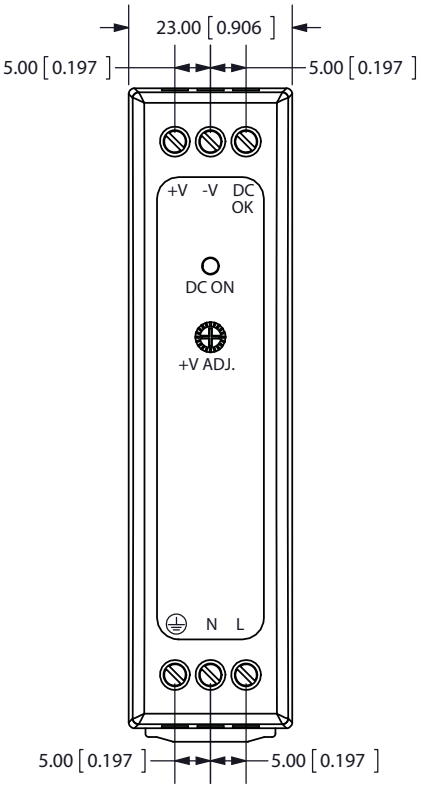
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute input to case for 1 minute			3,000 1,500	Vac Vac
isolation resistance	input to output, input to case, output to case, 500 Vdc	100			MΩ
safety approvals	UL 508, TUV EN60950-1, UL1310 NEC class 2 compliant				
EMI/EMC	EN55022 : 2006(Class B), EN61204-3: 2000, EN61000-6-3: 2007, EN61000-3-2,3 :2006, EN55024, EN61204-3: 2000, EN61000-6-1: 2007 (EN61000-4-2,3,4,5,6,8,11)				
leakage current				1	mA
RoHS compliant	yes				
MTBF		120,400			hours

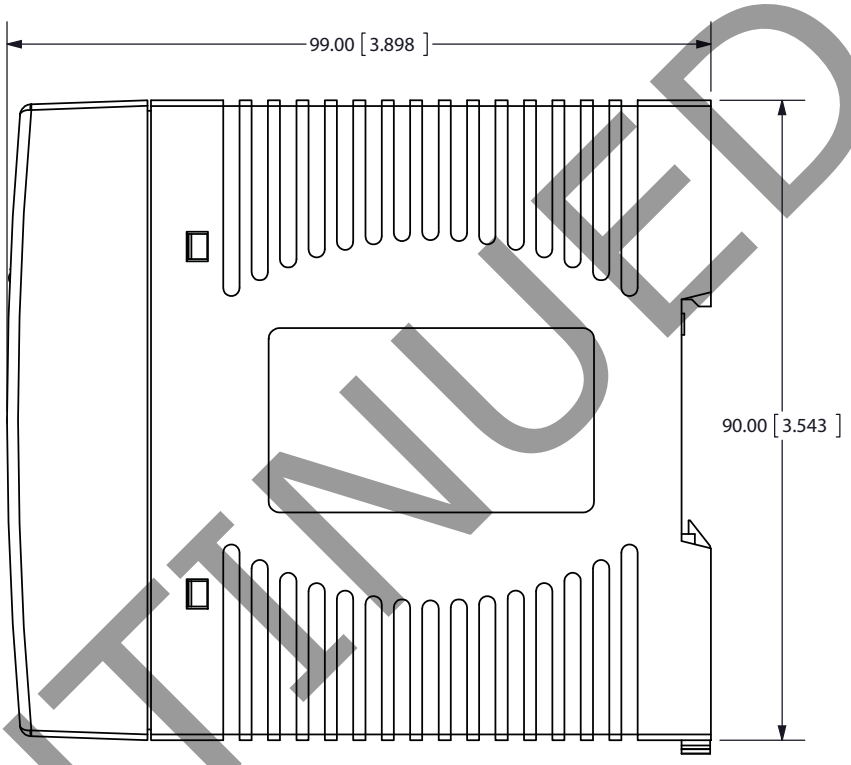
ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-20		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	20		90	%
storage humidity		10		95	%
vibration	(10 ~ 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

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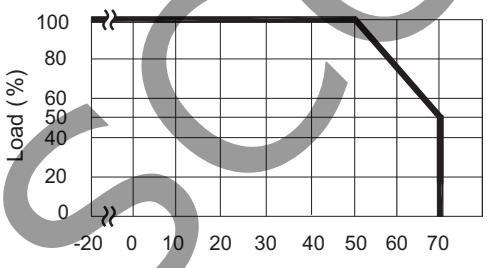
MECHANICAL DRAWING



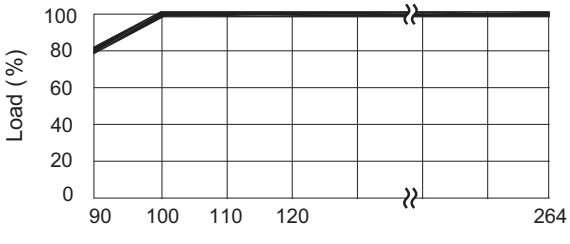


DERATING CURVE

Output power vs. Ambient temperature

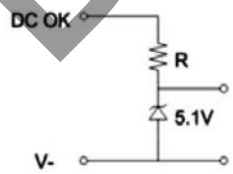


Output power vs. Input Voltage



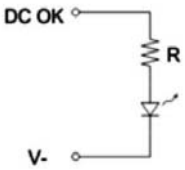
ACTIVE DC SIGNAL

(a)5V signal



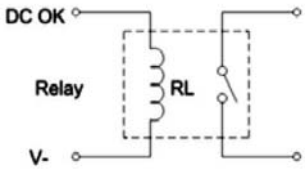
Model	R
12 V	≥ 1.5 KΩ
15 V	≥ 2.0 KΩ
24 V	≥ 3.9 KΩ

(b)LED



Model	R
12 V	≥ 2.4 KΩ
15 V	≥ 3.0 KΩ
24 V	≥ 4.7 KΩ

(c)Relay



Model	R
12 V	≥ 0.7 KΩ
15 V	≥ 0.7 KΩ
24 V	≥ 1.2 KΩ

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REVISION HISTORY

rev.	description	date
1.0	initial release	06/03/2010
1.01	new template applied	08/18/2011
1.02	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 INC®

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

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.