CUI INC®

SERIES: VDRS-100 | DESCRIPTION: AC-DC DIN RAIL

FEATURES

- up to 96 W continuous power
- DIN Rail power supplies
- universal input (88~264 Vac / 124~370 Vdc)
- single output from 12~48 Vdc
- over voltage, over load, over temperature, and short circuit protections
- UL 1310, UL 508, and TUV safety approvals
- long life electrolytic capacitors
- efficiency up to 88%

DISCONTINUED

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency (%)
VDRS-100-12	12	7.5	90	180	87
VDRS-100-15	15	6.4	96	180	87
VDRS-100-24	24	4	96	180	88
VDRS-100-48	48	2	96	250	87

Note: 1. At full load, 230 Vac input, measured at 20MHz bandwidth with a 47 µF and 0.1 µF parallel capacitors on the output.
2. All specifications are measured at Ta=25°C, 230 Vac input voltage, and rated output load unless otherwise specified.

PART NUMBER KEY

VDRS - 100 - 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			1.1 0.55	A A
inrush current	115 Vac, cold start 230 Vac			30 60	A A
power factor	at 115 Vac, full load at 230 Vac, full load	0.98 0.92			

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation				±1	%
load regulation				±2	%
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 EN 60950-1, UL 1310[1] NEC class 2 compliant				
EMI/EMC[2]	EN 55022 : 2006(Class B), EN 61204-3: 2000, EN 61000-6-3: 2007, EN 61000-3-2,3 :2006, EN 55024, EN 61204-3: 2000, EN 61000-6-1: 2007 (EN 61000-4-2,3,4,5,6,8,11)				
leakage current	at 230 Vac			1	mA
RoHS	2011/65/EU				

Note: 1. UL 1310 only for 24 & 48 Vdc output models.
2. The power supply is considered a component which will be installed into final equipment. The final equipment still must be tested to meet the necessary EMC directives.

ENVIRONMENTAL

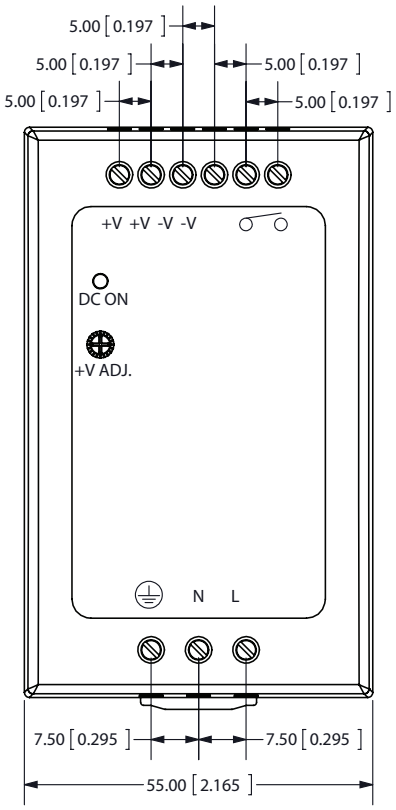
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-20		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	20		90	%
storage humidity		10		95	%
vibration	(10 ~ 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

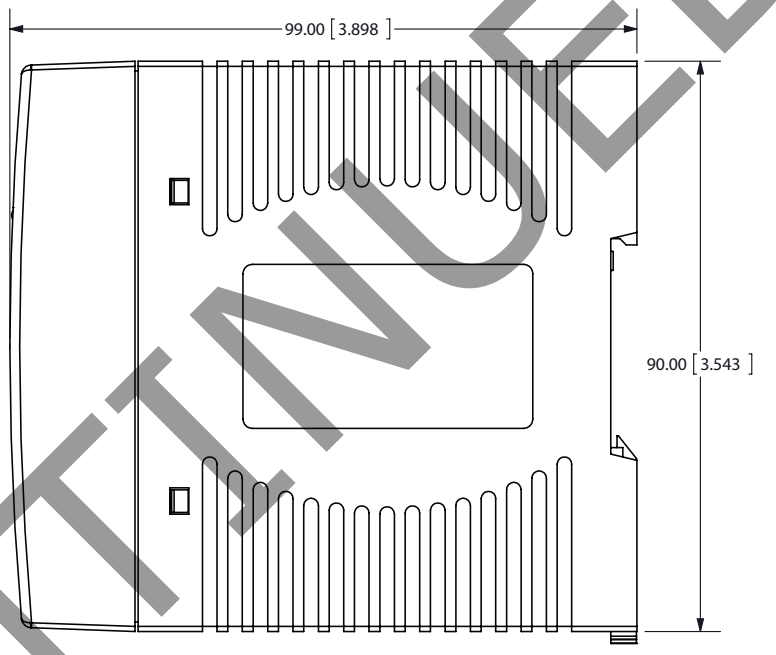
DISCONTINUED

MECHANICAL DRAWING

units: mm

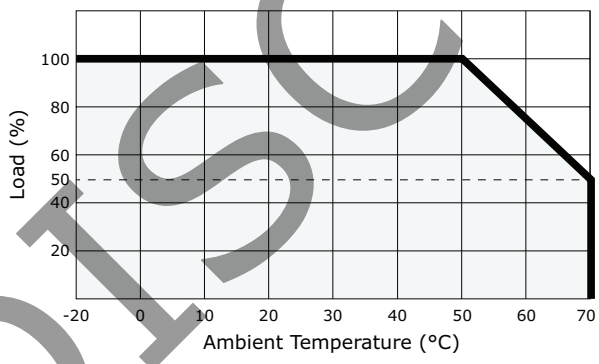
use with TS35/7.5 or TS35/15 rails



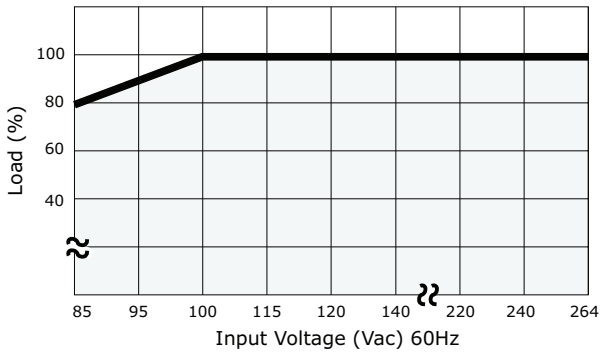


DERATING CURVES

Output Power vs.
Ambient Temperature



Output Power vs. Input Voltage
(at 25°C)



ACTIVE DC SIGNAL - RELAY CONTACT

Contact Close	When the output voltage reaches the adjusted output voltage
Contact Open	When the output voltage drops below 90%
Contact Ratings (MAX)	30 V / 1 A resistive load

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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, drawing updated	08/23/2012
1.03	updated datasheet	01/10/2017

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.