

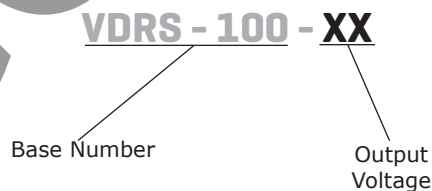
**SERIES: VDRS-100 | DESCRIPTION: AC-DC DIN RAIL**
**FEATURES**

- 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%



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise <sup>1</sup> 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  $\mu$ F and 0.1  $\mu$ F 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**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage		88		264	Vac
		124		370	Vdc
frequency		47		63	Hz
current	115 Vac			1.1	A
	230 Vac			0.55	A
inrush current	115 Vac, cold start			30	A
	230 Vac			60	A
power factor	at 115 Vac, full load	0.98			
	at 230 Vac, full load	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	16			ms
	at 230 Vac, cold start	32			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			3,000	Vac
	input to case for 1 minute			1,500	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 <sup>1</sup> NEC class 2 compliant				
EMI/EMC <sup>2</sup>	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.

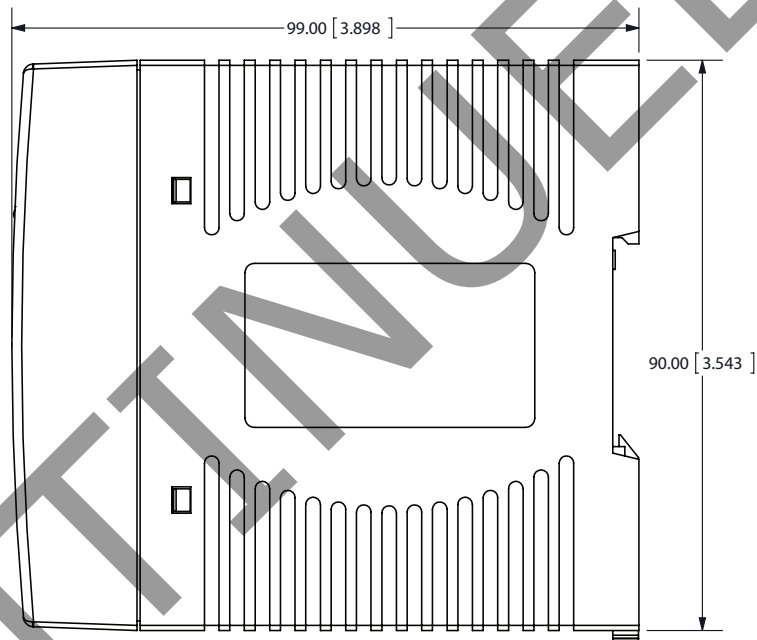
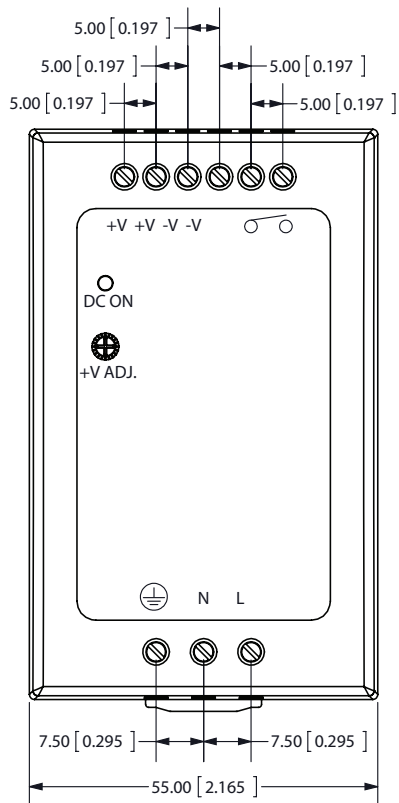
## ENVIRONMENTAL

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

## MECHANICAL DRAWING

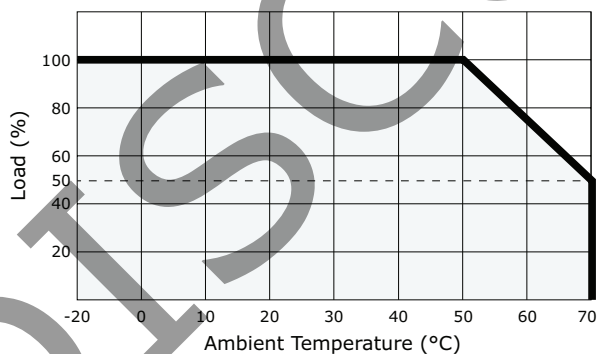
units: mm

use with TS35/7.5 or TS35/15 rails

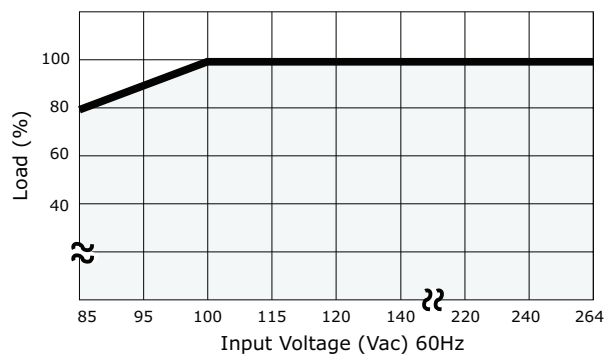


## DERATING CURVES

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

## 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.



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

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

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