

Excellent Integrated System Limited

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[CUI Inc.](#)
[VDRS-100-12](#)

For any questions, you can email us directly:
sales@integrated-circuit.com



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

FEATURES

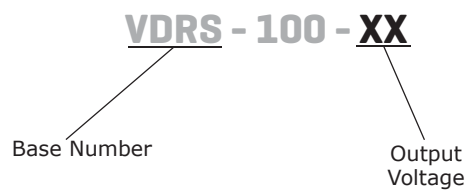
- up to 96 W continuous power
- DIN Rail power supplies
- universal input (88~264 Vac / 124~370 Vdc)
- single output from 12~48 V
- over voltage, over load, over temperature, and short circuit protections
- UL 1310, UL 508, and TUV safety approvals
- long life electrolytic capacitors
- efficiency up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



MODEL	output voltage	output current	output power	ripple and noise ¹	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p)	(%)
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 cap on the output

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

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
adjustibility	adjustible 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				

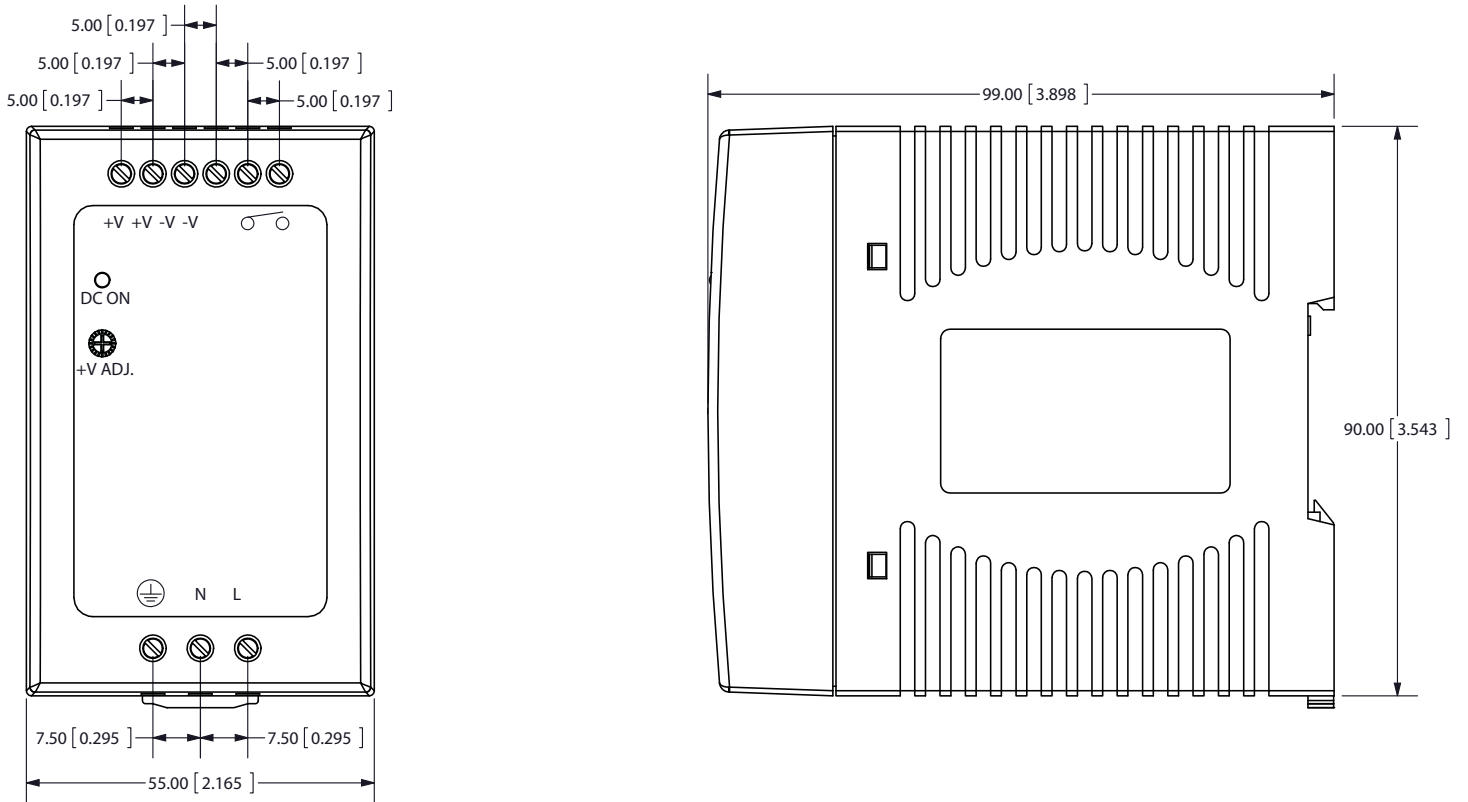
SAFETY & COMPLIANCE

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 NEC class 2 compliant				
EMI/EMC	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				1	mA
RoHS compliant	yes				

ENVIRONMENTAL

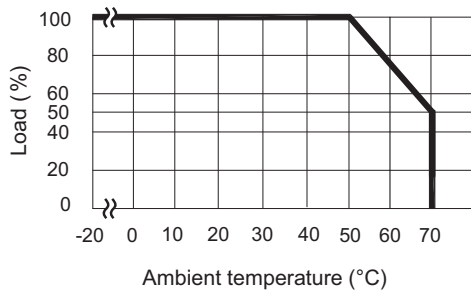
parameter	conditions/description	min	typ	max	units
operating temperature		-20		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	20		90	%
storage humidity		10		95	%
vibration	(10 ~ 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

MECHANICAL DRAWING

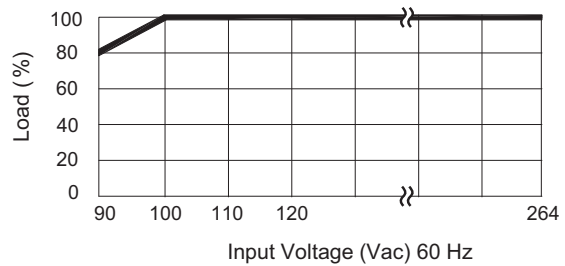


DERATING CURVE

Output power vs. Ambient temperature



Output power vs. Input Voltage



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

The revision history provided is for informational purposes only and is believed to be accurate.



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