

08/23/2012

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SERIES: VDRS-20 | DESCRIPTION: AC-DC DIN RAIL

FEATURES

- up to 24 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 up to 86%









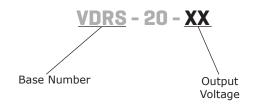




MODEL	output voltage	output current	output power	ripple and noise¹	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p)	(%)
VDRS-20-12	12	1.7	20.4	100	83
VDRS-20-15	15	1.4	21	100	85
VDRS-20-24	24	1	24	120	86

Note:

PART NUMBER KEY



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

INPUT

parameter	conditions/description	min	typ	max	units
voltage		88		264	Vac
voltage		124		370	Vdc
frequency		47		63	Hz
current	115 Vac			0.45	Α
current	230 Vac			0.32	Α
inwich ausent	115 Vac			20	А
inrush current	230 Vac			40	Α

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	16			ms
noid-up time	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				

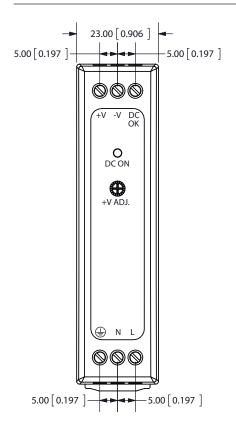
SAFETY & COMPLIANCE

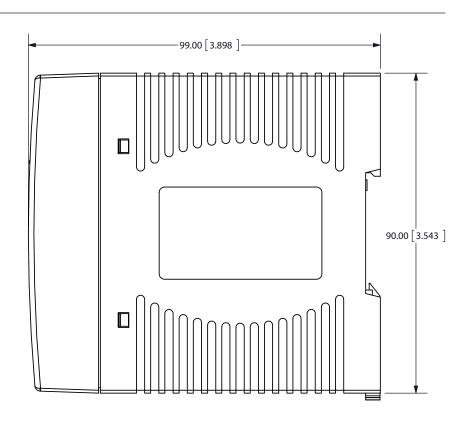
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute input to case for 1 minute			3,000 1,500	Vac Vac
isolation resistance	input to output, input to case, output to case, 500 Vdc	100			ΜΩ
safety approvals	UL 508, TUV EN60950-1, UL1310 NEC class 2 compliant				
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 \sim 500 Hz, 1 hour per axis, 3 hours total)		5		Grms

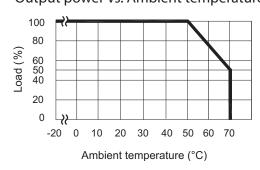
MECHANICAL DRAWING



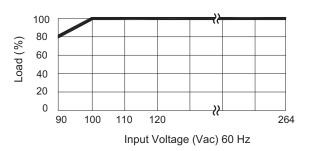


DERATING CURVE

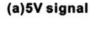
Output power vs. Ambient temperature

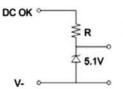


Output power vs. Input Voltage



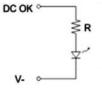
ACTIVE DC SIGNAL





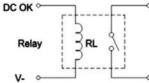
Model	R
12 V	≥ 1.5 KΩ
15 V	≥ 2.0 KΩ
24 V	≥ 3.9 KΩ

(b)LED



Model R 12 V \geq 2.4 K Ω 15 V ≥ 3.0 KΩ 24 V \geq 4.7 K Ω

(c)Relay



*	Model	R
	12 V	≥ 0.7 KΩ
	15 V	≥ 0.7 KΩ
0	24 V	≥ 1.2 KΩ

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	08/23/2012	

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



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