



Your Power House  
VP ELECTRONIQUE

EC-0138

## VPN-100B/C/D-xx Series

100W, Single Output

24V / 48V / 96V DC Input



159 x 95 x 38 mm  
6.26 x 3.74 x 1.50 inch



### Features:

- |                                     |  |
|-------------------------------------|--|
| * Power ON with LED indicator       | * Over voltage, over load & short circuit protection |
| * Input and output isolation        | * Output voltage $\pm 10\%$ adjustment               |
| * Non min. load requirement         | * 100% full load burn-in test                        |
| * Input polarity reverse protection | * According to the LVD Directive 2014/35/EU          |
| * Input under voltage protection    | * 3 years warranty                                   |
| * Natural Cooling                   |  |

### Specification:

INPUT	Model NO.	VPN-100B-xx Ser.	VPN-100C-xx Ser.	VPN-100D-xx Ser.	
		<b>Voltage</b>	18 ~ 36V DC (Typical 24V)	36 ~ 72V DC (Typical 48V)	72 ~ 144V DC (Typical 96V)
	<b>Current</b>	<8A @ 18V DC	<4A @ 36V DC	<2A @ 72V DC	
	<b>Protection</b>	Fuse , 10A/250V	Fuse , 6A/250V	Fuse , 3A/250V	
OUTPUT	<b>Voltage</b>	5V	12V	24V	48V
	<b>Min Load</b>	0A	0A	0A	0A
	<b>Max Load</b>	18A	8.4A	4.2A	2.1A
	<b>Output Tolerance</b> ②	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
	<b>Ripple Noise MAX.</b> ③	70mV	120mV	200mV	240mV
	<b>Efficiency (TYP.)</b>	.VPN-100B	82%	87%	87%
	VPN-100C,D	86%	91%	90%	91%
	<b>Output MAX.</b>	90W	101W	101W	101W
PROTECTION	<b>Over Voltage</b>	5.8~7.0V	13.8~16.8V	27.6~33.6V	55.2~67.2V
	Shutdown and latch off, recover after re-start up.				
	<b>OverLoad &amp; ShortCircuit</b> When power supply over 105%~ 150% max load or short circuit acted, power supply will be constant current limiting and recover automatically after the fault is removed.				
	<b>Input Voltage</b>	VPN-100B	Under voltage shut down: < 16.0V		
	VPN-100C	Under voltage shut down: < 32.0V			
	VPN-100D	Under voltage shut down: < 66.0V			
ELEC. CHAR.	<b>Rise time</b>	< 50mS			
ENVIRONMENT	<b>Temperature</b> ④	Operating: -20 ~ 70°C ; Storage: -40 ~ +85°C VPN-100B-xx : De-rating: 45 ~ 70°C : 2.5%/°C ; VPN-100C/D-xx : De-rating: 50 ~ 70°C : 2.5%/°C			
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH (non condensing)			
SAFETY	<b>Withstand voltage</b>	I/P-O/P:4.0KVDC, I/P-FG:2.5KVDC, O/P-FG:0.7KVDC, 1minute			
	<b>Isolation resistance</b>	I/P-O/P, I/P-FG, O/P-FG > 100M $\Omega$ /500VDC at 25°C / 70% RH			
	<b>Safety standard</b>	IEC 62368-1:2014 (Second Edition) and/or EN 62368-1:2014+A11:2017			
EMC	<b>EMI</b>	EN 55032 CLASS B 、 FCC CFR 47 PART 15 CLASS B 、 CNS 13438 CLASS B.			
	<b>EMS</b>	EN 55024 : EN 61000-4-2,3,4,5,6,8 ; ENV 50204			
OTHERS	<b>Cooling</b>	Natural Cooling.			
	<b>M.T.B.F.</b>	238.7K hours			
	<b>Dimension</b>	159 x 95 x 38 mm (L*W*H)			
	<b>Packing</b>	N.W.: 0.426Kg / 1pc(SDN-100B&C) / N.W.: 0.416Kg / 1pc(SDN-100D); 30pcs/ 1.20 CUFT / 1 CTN			
NOTE	① All measurements which not mentioned are based on 24V/48V/96VDC input, <b>output Max</b> at ambient 25°C / 70%RH				
	② Output tolerance included set up voltage, line regulation and load regulation.				
	③ Ripple & noise are measured at 21~36V / 42~72V / 82~144VDC input with 10~50°C condition and 20MHz of bandwidth by terminated using a 10" ~15" twisted pair-wire with a 0.1uF & a 47uF parallel capacitor.				
	④ The operating temperature shall follow the de-rating curve in spec				
	⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.				
	⑥ The ambient temperature should be de-rating by 5°C/1000m, when operating altitude higher than 2000m (6500 ft)				

Rev 0.4

09-2020



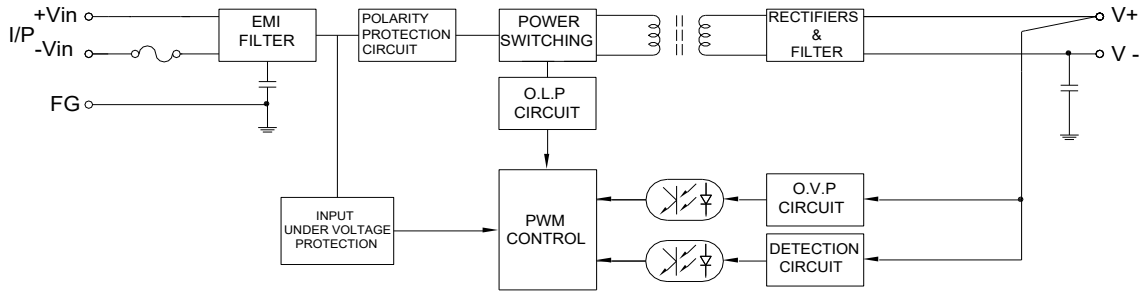
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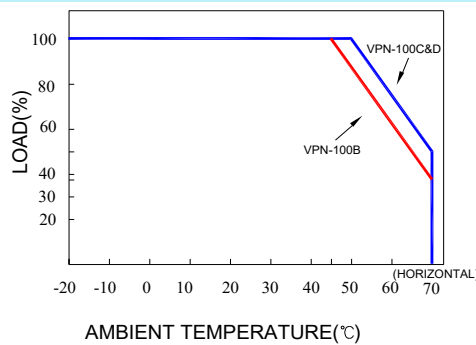
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## Block Diagram : DS51

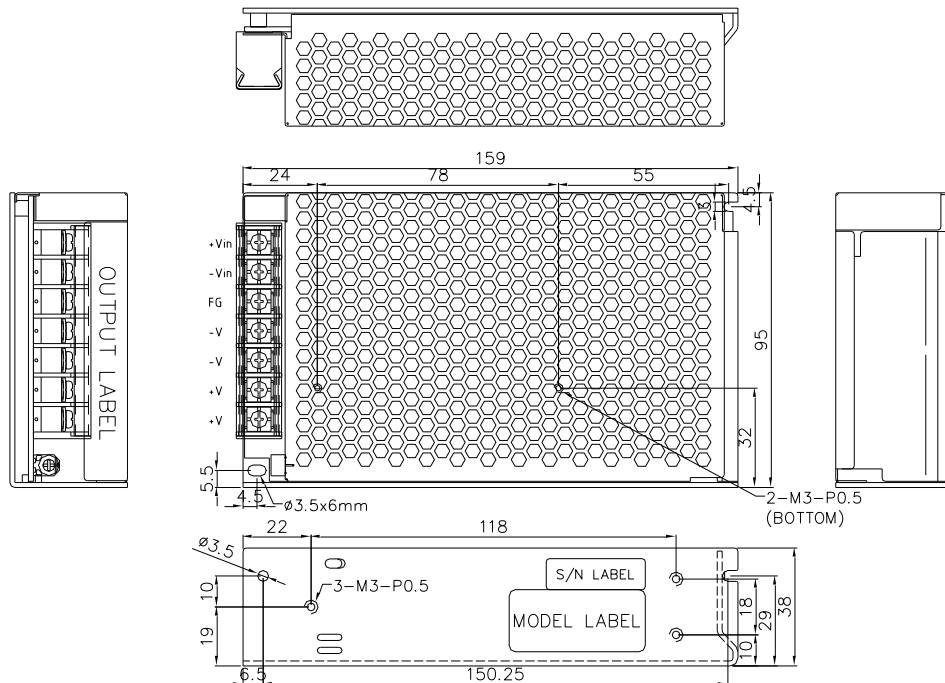


## De-rating Curve : E2-4



## Dimension:

(Unit: mm)



## NOTES:

TERMINAL BLOCK: 7P, PITCH 9.5mm with pc cover

MODEL No.	1	2	3	4	5	6	7
VPN-100B/C/D-xx	+Vin	-Vin	FG	-V	-V	+V	+V

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