



### Features:

- 50W Single Output - Regulated
- Output Range: 12V - 48- 63Hz
- Low Standby Power
- Fully Isolated Pri - Sec 3000Vrms
- 100% Full Burn-in Test
- LED Indicator DC On, DC Low

Part Number	Power Rating Watts	Output Voltage (Vdc)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
<b>VTX-211-050-112</b>	<b>50</b>	12	4200	70	>80%	90 - 264VAC
<b>VTX-211-050-124</b>	<b>50</b>	24	2200			
<b>VTX-211-050-148</b>	<b>50</b>	48	1100			
<b>Note: Other output voltages are available upon request.</b>						

### Application:

- Process Control
- Factory Automation
- Traffic & Transportation System
- Industrial Applications

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Model: 50Watt		Specification		
Model		VTX-211-050-112	VTX-211-050-124	VTX-211-050-148
<b>OUTPUT</b>	Voltage DC	12V	24V	48V
	Rated Power	50W	50W	50W
	Rated Current	4.2A	2.2A	1.1A
	Current Range	0 - 4.2A	0 - 2.2A	0 - 1.10A
	Voltage Tolerance	1%	1%	1%
	Voltage Adj. Range	11.6V - 12.3V	23.5V - 24.5V	47.5V - 48.3V
	Minimum Load	0	0	0
	Ripple / Noise Typical	25mV	40mV	45mV
	Line Regulation	1%	1%	1%
	Load Regulation	1%	1%	1%
	Rise Time (115VAC)	560mS	560mS	560mS
	Hold Up Time (115VAC)	20mS	20mS	20mS
	Note:	The ripple values are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1uF & 47uF parallel capacitor under ambient temperature 25°C at rated input voltage and rated load		
<b>INPUT</b>	Voltage Range	90 - 264VAC /	90 - 264VAC	90 - 264VAC
	Input Frequency	47 - 63Hz	47 - 63Hz	47 - 63Hz
	Efficiency	>80%	>83%	>84%
	Current	1.06A (115VAC) / 0.52A (230VAC)		
	Inrush Current	30A (115VAC) / 60A (230VAC)		
	Leakage Current	<0.25mA		
	No Load Power	2W		
<b>Protection</b>	Over Current	6A	3A	1.5A
	Over Voltage	20V	33V	66V
	Short Circuit Protection	Hiccup mode, it will recover automatically after fault condition is removed		
	Over Temperature	Over temperature protection value: 100±10°C		
	Surge Voltage (L - N)	2KV		
<b>Dielectric Isolation</b>	Isolation Voltage	I/P-O/P: 3KVac, I/P-FG: 1.5KVac, O/P-FG: 1.5KVac		
<b>Environment</b>	Operating Temperature	-25°C - +70°C (With Derating)		
	Operating Relative Humidity	Non Condensing 20 - 95%		
	Storage Temperature	-40°C - +85°C (Humidity 5 ~ 95% RH)		
	<b>MTBF</b>	>200,000Hrs @ 25°C (MIL-HDBK-217F)		
	Weight	570g		
	Cooling Method	Free Air Convection		
	Mounting	Vertical		
<b>Safety</b>	Compliant Standards	UL/IEC/EN60950-1		
<b>EMC</b>	EMI / EMS	EN 55022:2010+AC:2011 (CISPR 22:2008) ClassB EN 61000-3-2:2014 (IEC 61000-3-2:2014) EN 61000-3-3:2013 (IEC 61000-3-3:2013) EN 55024:2010 (CISPR 24:2010)		

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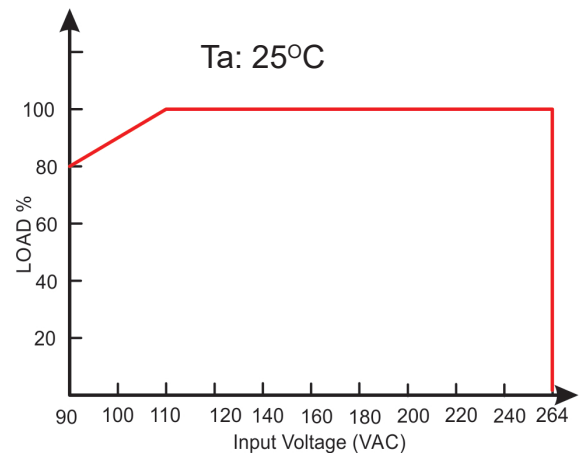
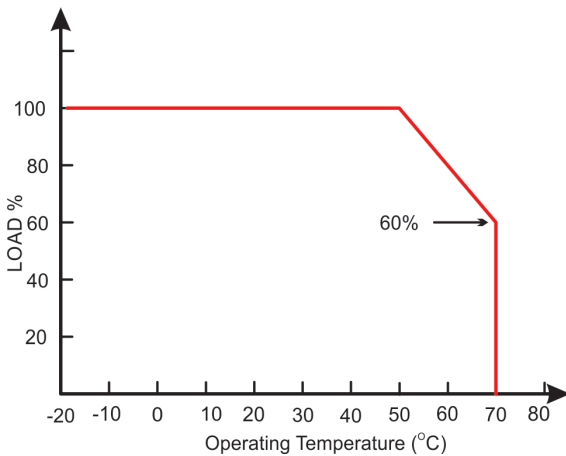
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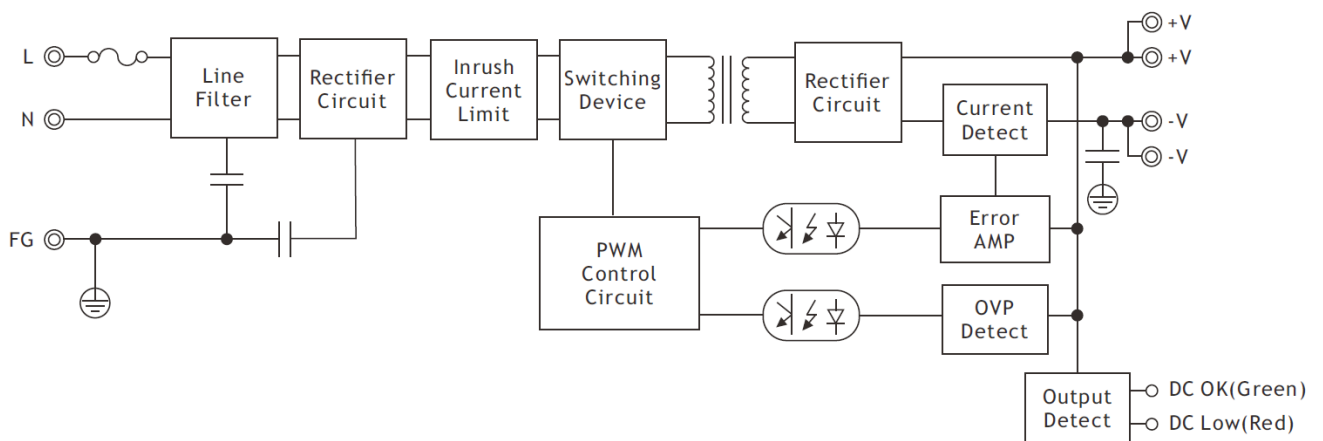
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## Electrical Derating Graphs



## Block Diagram

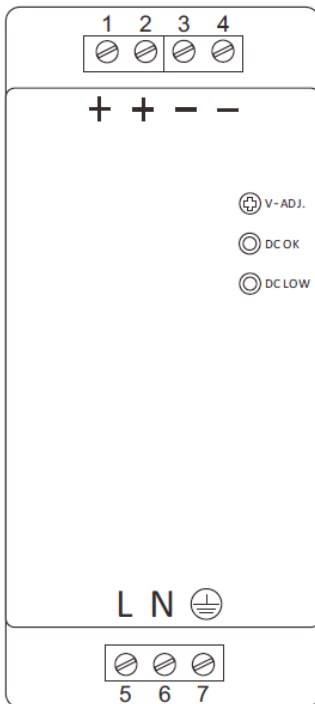
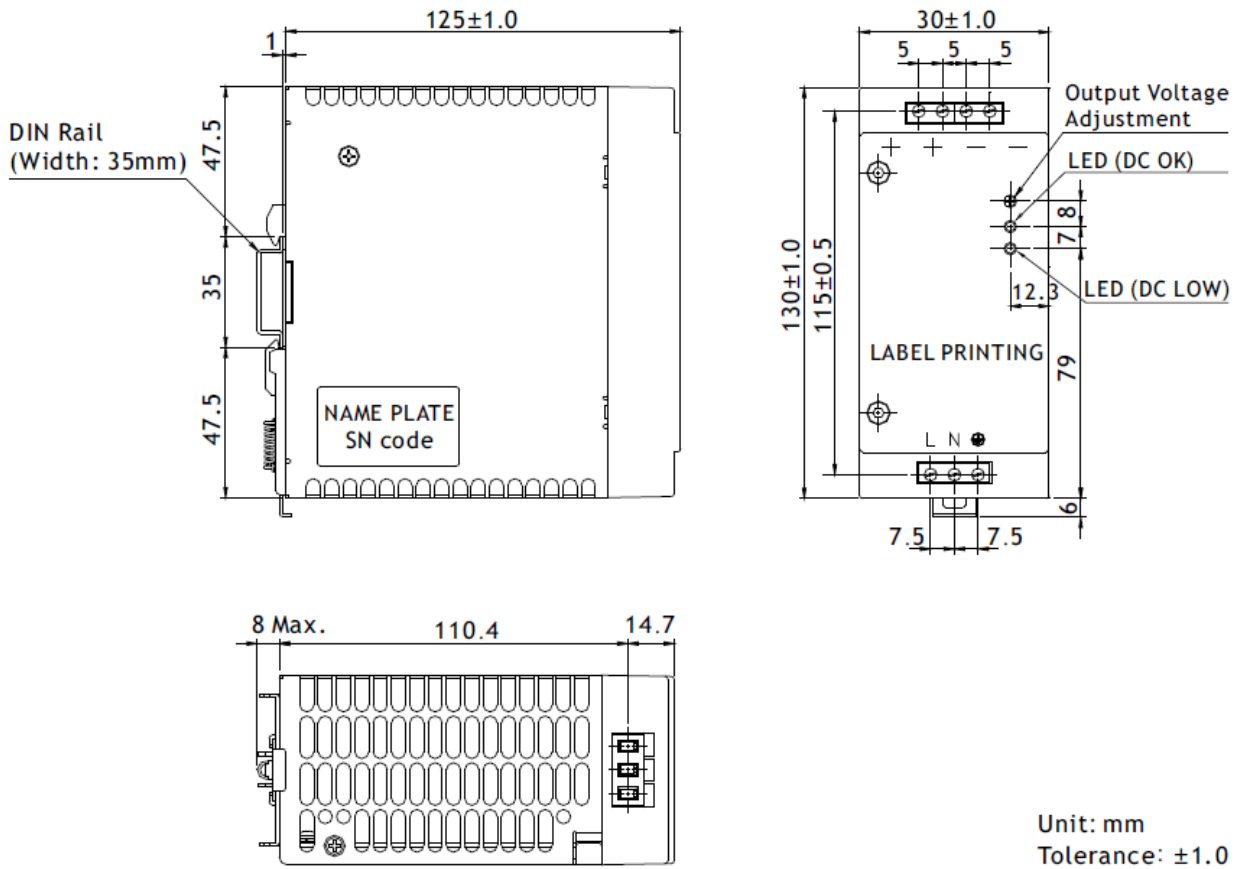


LED(Green)  
DC OK LED light will be ON when the power supply is properly operated

LED(Red)  
DC Low LED light will be ON:  
(1) when output voltage is below 85%(±2.5%) from the rated output voltage;  
(2) when get over voltage, over current, over temperature and short circuit fault

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## Mechanical Layout



Marking	No.	Assignment
+	1	DC(+) Output Terminal
+	2	
-	3	DC(-) Output Terminal
-	4	
L	5	AC(L) Input Terminal
N	6	AC(N) Input Terminal
⊕	7	AC Grounding Terminal
V-ADJ.	/	DC Output voltage adjustment trimmer
DC OK	/	DC Output OK indication LED(Green)
DC LOW	/	DC Output Low indication LED(Red)

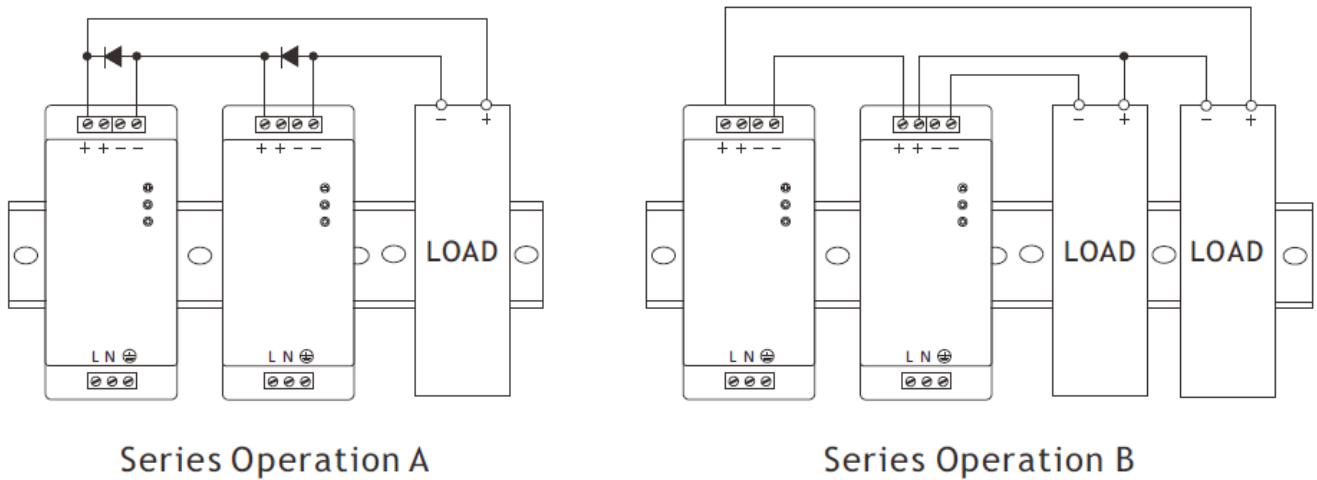
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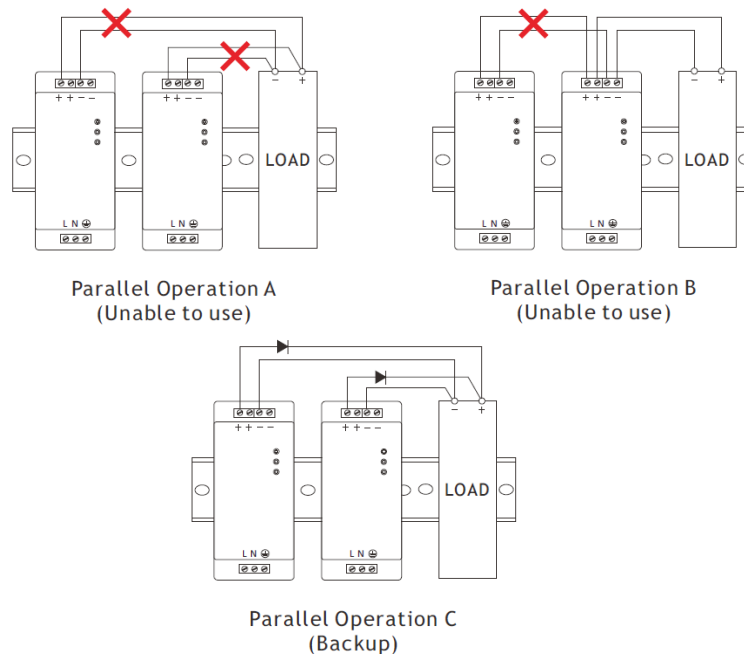
## Application Note: Series Connection



**Note:**

1. Series operation can be connected as shown in above;
2. Load current should be less than the current value of the product with the lowest output current specified at the product specification with the power supply at series connection.

## Application Note: Parallel Connection

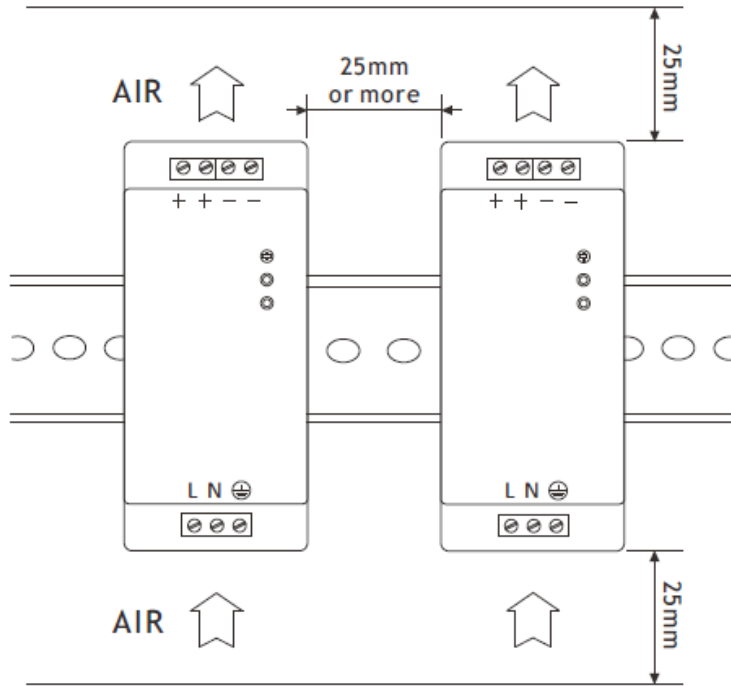


**Note:**

1. Parallel operation should be composed with the same products, while the connection should be as shown as "Parallel operation C";
2. In parallel operation C, current capacity cannot be increased, while it should be used for backup only. Moreover, diode that is to be added during parallel operation should be selected after considering it's voltage drop, output voltage and current capacity.

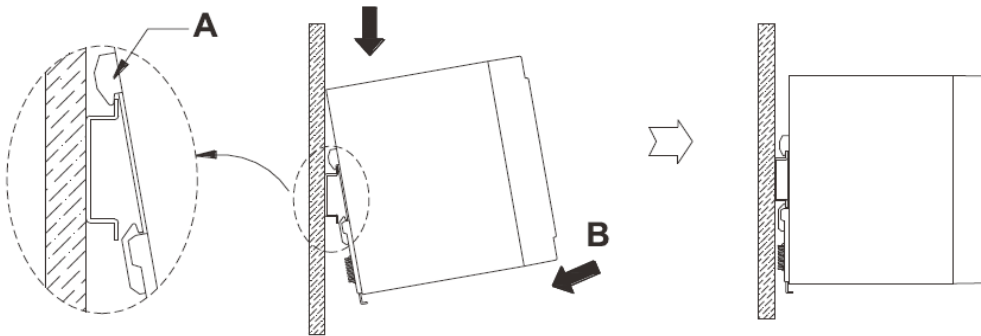
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## Application Note: Mounting



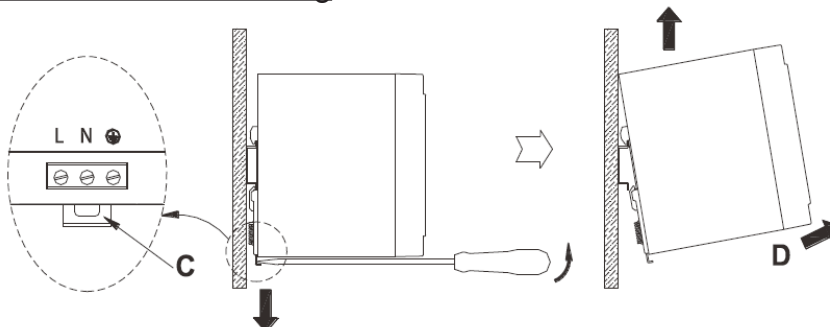
Mounting method should be considered with airflow. Leave enough space between the units when several units are mounted together. Forced air cooling makes protection against heat better.

## Application Note: Fitting



Firstly hang A part on the top of Rail as shown in below, then push the power supply into B direction to fix it.

## Application Note: Removing



Remove the power supply to D direction, pulling C part by using tools, such as a screwdriver, to downward direction.

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